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ABSTRACT

On the instruction of the Council of Ontario Universities, the Advisory Committee on Academic Planning has conducted a planning assessment for planning and environmental studies. Following observations and recommendations by the Committee, the consultants' report is presented in two parts--planning and environmental studies. The planning segment of the report presents a summary "profile" of Ontario planning schools, planning students, and planning graduates; Ontario planners and Ontario planning; the future supply of and demand for graduates of Ontario planning schools, the nature of planning education, and the economic size of these schools; and individual reports concerning Ottawa, Queen's, Waterloo, York, and Toronto. The second segment, environmental studies, reviews tradition and innovation; the function of names, and programs; and individual reports for York, Guelph, Toronto, and Eastern Ontario. (MJM)

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Council of Ontario Universities

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# Perspectives and Plans for Graduate Studies

## 13
## Planning and Environmental Studies
## 1974

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Advisory Committee on Academic Planning
Ontario Council on Graduate Studies

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Council of Ontario Universities
Conseil des Universités de l'Ontario

# PERSPECTIVES AND PLANS FOR GRADUATE STUDIES

## 13. PLANNING AND ENVIRONMENTAL STUDIES 1974*

Advisory Committee on Academic Planning
Ontario Council on Graduate Studies

74-24

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* The status of this report is given in Item 2 of the statement of principles, on page 1.

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# FOREWORD

The Advisory Committee on Academic Planning (ACAP), as presently constituted, was established by the Ontario Council on Graduate Studies at the request of the Council of Ontario Universities in January, 1971. The Advisory Committee's terms of reference were directed broadly toward the effective planning and rationalization of long-term graduate development in Ontario's universities both at the level of individual disciplines and at a more general level. The Advisory Committee's activities are based on the premise that graduate work is the one area of university activity in which specialization among universities, cooperative arrangements and comprehensive planning are most necessary.

In March, 1971, concern over the rising costs for support of graduate work prompted the Ontario government to institute a general embargo on funding for any new graduate programme, that is, one which had no students enrolled on May 1, 1971. This embargo was subsequently modified to include only those disciplines in which over-expansion was felt to be potentially most serious. ACAP was to begin immediately planning studies in those disciplines which remained embargoed.

The disciplinary planning process begins with the formation of a discipline group composed of one representative from each university with an interest in graduate work in the planning area. The discipline group assists in defining the precise academic boundaries of each study, scrutinizes the data collection forms, prepares a list of potential consultants, maintains contact with the consultants during the study, and prepares a commentary on the consultants' report.

The final decision on consultants for the planning study is made by ACAP. The consultants are requested to make recommendations on programmes to be offered in Ontario, desirable and/or likely enrolments, the division of responsibility for programmes among universities, and the desirable extent of collaboration with related disciplines.

While the consultants' report is the single largest element in the final report on the planning study, ACAP considers the statement of each university's forward plans to be most significant. These forward plans are usually outlined prior to the planning study, and are used as a basis for comments from the universities concerned on the consultants' report.

On receipt of the consultants' report, and comments on it from the discipline group and the universities, ACAP begins work on its own recommendations for submission directly to the Council of Ontario Universities. COU considers the input from all sources, and prepares the position of the Ontario university community.

The following report is one of a series of disciplinary planning studies carried out by the Advisory Committee on Academic Planning and to be published by the Council of Ontario Universities. The emphasis of the report is on forward planning, and it is hoped that the implementation of COU's recommendations will help to ensure the more ordered growth and development of graduate studies in Ontario's universities.

Council of Ontario Universities
Conseil des Universités de l'Ontario

## Report and Recommendations concerning Graduate Studies in Planning and Environmental Studies

On the instruction of the Council of Ontario Universities, the Advisory Committee on Academic Planning has conducted a planning assessment for planning and environmental studies. The resultant report from ACAP is attached together with the consultants' report, the comments by the discipline groups for planning and environmental studies and for geography, and the comments of the individual universities. The procedure followed and the planning techniques used are described in the ACAP report and are not repeated here. It is important for the reader to read the ACAP report and attachments in order to understand the recommendations in this Report from COU.

The Council received the ACAP report and supporting documentation on September 6, 1974.

As a result of these discussions this Report and Recommendations were prepared and approved by the Council on October 3, 1974. The Report is addressed to the Ontario Council on University Affairs and the universities of Ontario.

The following principles have been adopted and will apply to this and all other COU Reports arising out of assessments.

1. Discipline assessments by ACAP should form the basis for planning by the universities of their development of graduate studies, particularly PhD programmes. On the basis of these assessments, COU should make its own recommendations on currently embargoed programmes. Each university must retain the freedom and responsibility to plan and implement its own academic development. However, the universities in embarking on a cooperative planning process have signalled their intentions of cooperating with the COU recommendations.

2. Universities generally plan their emphases in graduate study on the bases of related departments, not of single departments. Initially the sequential nature of the discipline planning assessments makes this difficult. However, by the summer of 1974 there will have been assessments of most of the social sciences, all of the physical sciences, engineering doctoral work, and a number of professional areas. On the information and recommendations then available, each university should be able to make decisions concerning its support of graduate programmes in these areas. Amendments to university responses to the individual discipline planning assessments may then be made in the wider context of a group of related disciplines and amendments to COU's original Reports on an individual discipline may be required.

3. The first concern in planning is to review the quality of graduate opportunities and of students in Ontario universities and to make judgements about how to proceed or not proceed based on quality considerations. The procedures have made use of highly qualified independent consultants who have no direct interest in the universities in Ontario. Accordingly, COU feels bound to accept their judgements about quality where they are stated clearly unless unconvinced that their conclusions about quality are consistent with their evidence. COU's recommendations in the case of programmes which are of unsatisfactory or questionable quality will call for discontinuation or the carrying out of an appraisal, if the continuation of the programme is not crucial to the province's offerings. In some cases, however, there may be a particular need for the programme and the appropriate recommendation will be to strengthen it, with an appraisal following that action. It is also possible that if there were found to be too large a number of broadly-based programmes there could be a recommendation to discontinue the weakest; in this case, an appraisal for a more limited programme might be relevant.

4. A second consideration is the scope of opportunities for graduate work in the discipline. Do the Ontario programmes together offer a satisfactory coverage of the main divisions of the discipline?

5. Numbers of students to be planned for will depend on the likely number of applicants of high quality and in some cases may relate to an estimate of society's needs. Such estimates may be reasonably reliable in some cases and not in others. If the plans of the universities appear to be consistent with the likely number of well-qualified applicants and there is either no satisfactory basis for estimating needs or there is no inconsistency between a reasonable estimate of need and the universities' plans, then COU will take note of the facts without making recommendations on the subject of numbers.

   If the numbers being planned for by the universities are grossly out of line with the anticipated total of well-qualified students, or a reliable estimate of needs, COU will make appropriate corrective recommendations. Depending on the circumstances, these may call for a change in the total numbers to be planned for and indications of which institutions should increase, decrease, or discontinue. The recommendations in serious cases may need to specify departmental figures for each university for a time. If the numbers being planned for are insufficient, the recommendations may call for expansion, or new programmes, and may have implications for both operating and capital costs.

   Unless there are exceptional circumstances, the recommendations concerning enrolment will not call for a university to refuse admission to any well-qualified student who wishes to work in a field in which that university offers a programme and in which it has the capacity to accommodate the student.

6. The quality of graduate programmes is partly dependent on size, and for each programme, depending on how it is designed and its scope, there is a minimum size of enrolment below which quality may suffer. That number cannot be expressed for the discipline as a whole but only for individual programmes depending on their purpose, their resources and their design.

7. Universities will be expected to notify COU if they intend to depart from the COU Report in any way which they believe might have a significant bearing on the provincial plans.

8. Appraisals arising as the result of assessments are to be based on the standards but not necessarily the scope of the acceptable programmes in the province.

## General observations concerning planning and environmental studies

1. All programmes now in operation should continue. A new doctoral programme in planning and two nascent master's programmes in environmental studies are included in the provincial plan for the next five years.

2. Effective involvement of the social sciences and humanities in the existing and future programmes in environmental studies is of major importance and should be encouraged.

3. Offerings of mid-career and refresher courses for practising planners and environmentalists should be increased.

4. Since at present too many specialties are offered to a subcritical number of students, the number of specialties offered should be decreased.

5. No doctoral programmes in environmental studies are proposed or recommended in the next five years.

## Action by COU

1. COU requests ACAP to arrange that the planning and environmental studies discipline group, in its normal role, in consultation with ACAP, review the coverage of specialties in the province, keeping in mind the consultants' comments concerning number, size and balance of the fields offered by each department or school for specialization.

## Recommendations

It is recommended that:

1. Mid-career and refresher courses for practising professionals in planning and environmental studies be offered by the Ontario universities.

2. Individual universities and the Appraisals Committee take note of the importance of the involvement of the social sciences and humanities in the environmental programmes on an effective, not merely token basis.

3. The University of Guelph consider the function of the Centre for Resources Development, the involvement of the social sciences and humanities, and its proposed "course-only" degree, and submit for appraisal its master's programme in resource development. The university should cease to enrol new students in the programme after October, 1977, if a favourable appraisal has not been obtained.

4. The University of Ottawa develop an interdisciplinary master's degree programme in regional planning with an autonomous academic identity and have this new programme appraised. If a successful appraisal has not been obtained by the end of the fall term, 1976, enrolment of new students in the master of arts in geography (regional planning) programme should cease.

5. Queen's University give careful consideration to the need for more staff and a greater commitment of support from the Graduate School and submit its master's degree programme in planning for appraisal, ceasing to enrol new students at the end of the fall term, 1977, if a favourable appraisal has not been obtained.

6. The University of Toronto continue its master's work in planning according to its plans, and that it begin to offer doctoral work in planning at the level of enrolment suggested by the consultants.

7. The University of Toronto continue to develop and submit for appraisal, a proposal for a master's programme to be offered by the Institute for Environmental Studies, keeping in mind the need for a substantial admixture of the social sciences and humanities.

8. The University of Waterloo continue its master's and doctoral work in planning according to its plans.

9. The University of Western Ontario continue its master's of engineering programme in environmental engineering with its present objectives.

10. Planning approval be given for a master's programme in environmental studies at the University of Western Ontario if the University should decide to proceed with the development of such a programme.

11. York University continue its Master of Environmental Studies programme in accordance with its plans which include reappraisal. A proposal is now before the Appraisals Committee. Any area which has not received a favourable appraisal by October, 1975, should cease enrolment of new students.

12. In view of the acceptance of these recommendations by COU and the completion of the planning assessment, the Ontario Council on University Affairs request the Minister to remove the embargo on planning

and environmental studies in accordance with the original announcement of the Minister that new graduate programmes would be embargoed until, for each discipline, a planning study has been conducted.

Notes

Re: Recommendation 3

A full discussion of these points is found on pages A-66 to A-68 of the consultants' report.

October 3, 1974.

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ADVISORY COMMITTEE ON ACADEMIC PLANNING
ONTARIO COUNCIL ON GRADUATE STUDIES

# REPORT TO THE COUNCIL OF ONTARIO UNIVERSITIES
# ON
# PLANNING AND ENVIRONMENTAL STUDIES PLANNING ASSESSMENT

July 12, 1974

## PROCEDURE

On the advice of the Ontario Council on Graduate Studies, the Council of Ontario Universities, on September 17, 1971, instructed the Advisory Committee on Academic Planning to conduct a formal planning assessment in this area.

Since there has recently been some renewed discussion concerning the desirable scope of planning studies it may be useful to note that originally ACAP suggested that there be just two planning assessments in a large area of related studies, viz geography, other earth sciences, urban and regional planning and related environmental studies. One assessment was proposed to cover the more physical science side (geology, parts of geography and geophysics) and the other assessment would deal with the remainder. There was considerable opposition from the Geography Discipline Group to the proposal that there be no separate geography assessment, and after further discussion with the three discipline groups involved, it was decided to have three planning assessments, one in geography (except for geomorphology and pedology) and involving only the Geography Discipline Group, one in solid earth sciences involving the Geography Discipline Group and the Geology Discipline Group (with some geophysicists in attendance), and one in planning and environmental studies involving the Discipline Group of that name and also with comments from the Geography Discipline Group.

The Planning and Environmental Studies Discipline Group is made up of members named by each interested university. The membership of this group is attached as Appendix E. The ACAP planning and environmental studies portfolio, previously held by Professor K. H. Burley, then Professor B. N. Smallman, is now held by Professor G. Setterfield. A "portfolio holder" takes particular interest in that discipline and sometimes, when ACAP representation is necessary, attends meetings of the discipline group.

The procedure and terms of reference for the planning assessment were approved by OCGS and COU, the latter's approval being received on April 7, 1972. This document is attached as Appendix D.

The Discipline Group began its meetings in December 1971. In accordance with the procedure, the Discipline Group provided ACAP with a list of possible consultants. ACAP obtained the services of Professor I. M. Robinson, University of Southern California, Dr. J. R. Weir, Chairman of the Fisheries Board, and Professor T. Penelhum, University of Calgary.

Brief curricula vitarum appear as Appendix H. Dr. Penelhum played the role of the senior Canadian academic from outside the discipline in this planning assessment. The consultants held their first meeting in

Toronto in April, 1973, and discussed, with the Discipline Group, their schedule of visits to the universities. These took place during June.

The draft report of recommendations was presented to the Discipline Group for informal comments on April 10, 1974, and the final report was subsequently received and distributed May 2, 1974. The Discipline Groups and the universities were requested to submit comments to ACAP by June 26.

After receipt of these comments, a subcommittee of four ACAP members met to draft the ACAP recommendations to COU. This subcommittee felt that no interviews with university representatives would be necessary since, in this case, no obscure points were raised. The subcommittee did, however, write to the consultants for interpretation of several points. The Discipline Groups' comments plus those of the universities appear in Appendices B and C respectively. The latter includes only those comments specified by each university for publication.

This report then is based on these data, reports and comments, and sets out recommendations for COU on the plan for graduate work in planning and environmental studies in the province for the next several years.

As is required, ACAP presents this report directly to COU. It has been transmitted, as well, to the Ontario Council on Graduate Studies for information.

# GENERAL INTRODUCTION

## Planning Techniques

For some years now, the universities of Ontario have been committed to the belief that the quality and effectiveness of graduate study in the province can be ensured only by collective and cooperative action. This implies a mechanism for continuing consultation and agreement so that the plans of each university for each of its disciplines are concerted with those of the other universities. At any given time there will exist a plan for the development of each discipline, with agreed and understood roles for each department; since graduate education is the most advanced formal intellectual activity and is, therefore, undergoing change, it is necessary that such plans be kept under regular review and be subject to ready amendment.

The Council of Ontario Universities had assigned to the Ontario Council on Graduate Studies the task of advising it on the development of such plans and of the steps to be taken to carry them into effect. The standing committee which carries out these tasks for OCGS is the Advisory Committee on Academic Planning. A significant role is also played by the discipline groups, one of which is established for each subject, with a representative from each interested university. Each discipline group has the function of assisting and advising ACAP in connection with its own subject.

The above may give the impression that the planning activity is fragmented on a disciplinary basis. This would, of course, not be acceptable. Since the development of one department in a university should not be considered independently of its contribution to the rest of its university and of the influence of the university as a whole on the department, it is most important the universities as institutions play a central role in the planning process. One of the most effective ways of doing this is by indicating to ACAP the nature of institutional commitments to a department and institutional aspirations for the department.

The most significant single input to a planning assessment is the set of statements from each university of its plans for its department. When these are subjected to collective scrutiny it may be found that their totality constitutes a reasonable plan for the discipline in Ontario, but in any case this set of plans is the first approximation to the provincial plan, which the planning assessment may have to refine if there are duplicated features, lacunae in offerings, too large a total enrolment or other reasons to recommend altering some of the university plans. The universities are also involved in that the bodies that act on ACAP reports, i.e. both COU and OCGS, are composed of universities.

The formal documents stating the responsibilities of ACAP and the discipline groups are Appendix F. Briefly summarized, it is ACAP's function to advise on steps to be taken to implement effective provincial planning at the graduate level, to promote the arranging of the graduate programmes of the province in order to enhance and sustain quality and to avoid undesirable duplication, and, when necessary, to carry out formal planning reviews for disciplines. A discipline group has the responsibility of keeping under review the plans for graduate work in the discipline and making regular progress reports to ACAP in connection with graduate work in that subject. To make all this possible, it has been agreed that ACAP may communicate directly with universities and discipline groups, to request necessary information, to discuss reports, to convene meetings, and to make and receive proposals for the future.

The above information has been given in some detail because it constitutes the mechanism currently approved by COU for cooperative graduate work. It is fair to say that in 1971 there was no mutually agreed plan for graduate study in any discipline. Our task is not only to generate the first such plan for each subject but also to ensure that it is kept under continual review.

There are four fundamental components in the plan. The first is analysis of the fields of study, the formats of study which should be available to prospective students in the province. The second is an estimate of overall provincial enrolment at master's and doctoral levels based principally on the likely numbers of highly qualified applicants. In regard to considerations of manpower needs for the province of Ontario, ACAP is conscious of the unreliability of forecasts and, except in special cases, subscribes to the approach proposed in the Macdonald Report (1969):

> "The country as a whole and the provinces must be concerned about manpower requirements. This concern can be expressed in the first instance through careful survey and forecasting of manpower needs on a continuing basis. Such forecasts should be given wide circulation. It is reasonable to expect that universities will respond by creating additional opportunities for study in the areas of shortage. In addition, the universities through their counselling services have a duty to advise students about the opportunities in various fields from the standpoint not only of intellectual challenge but also of vocational prospects and social utility. The reaction of prospective students to such forecasts is likely to provide an effective control. We believe the market-place, if its trends are made explicit, offers an adequate governor to prevent serious surfeit and to encourage movement of students toward fields of opportunity."

The third component of the plan is an indication of the role to be played by each department in terms of the programme it will offer and its academic emphasis. Cooperative arrangements between departments are stressed. The fourth component consists of an examination of the enrolment plans of the universities and consideration as to whether the universities' plans and the predicted enrolment for this discipline are consistent. If not, some appropriate action should be recommended to COU. It will be seen that although there may also be other aspects, these are four necessary components in such a plan.

In the case of planning and environmental studies, there is no major enrolment mismatch. One must hasten to add that the future is uncertain and that to forecast intellectual trends, student interests, and employment markets five years hence is to undertake to examine many variables. Of course, this is not a new exercise since all universities have had to make decisions about building, staff hiring, library expansion, equipment investment and so forth and have done so on a basis of similar forecasts. Perhaps sometimes the forecasts have been more intuitive than consciously recognized, but they have certainly been there. All that is new is to make such plans systematically for the province.

It will be realized that, at a minimum, the ongoing planning procedures we have indicated require annual reporting of enrolments and annual examination of admissions standards. When there are indications from these or other sources that some aspects of the plan for the discipline are not being realized, it will be necessary for ACAP to initiate a review. Such a review would usually not involve outside consultants. Whether the impetus came from a discipline group, a university or ACAP itself, comments would be sought from all concerned and the review would culminate in a report to COU recommending an amendment to the plan.

If a university notifies ACAP of its intention to depart from its accepted role (for example to enrol numbers substantially at variance with its understood plan), ACAP will review the situation in the light of any other such notifications it may have received and any other pertinent factors. The extent of any further study would depend on the situation, but if ACAP felt that the university's new plan could be a cause for concern, its first step would be to seek full discussion with the university. Normally there would already have been discussion in the discipline group and between universities and the university would have reached its intention after a careful examination of the general situation of graduate study in the discipline. Thus the ACAP decision would be straightforward and a change in plan would be recommended to COU through OCGS. If, however, ACAP still felt that there was a probability that the university's action might be found, on further study, to be potentially harmful to the system, it would probably next seek comments from other universities concerned and from the discipline group. In any case, ACAP would eventually make some recommendation to COU (through OCGS) concerning the variation.

It is difficult without a concrete case to speculate on likely recommendations, but perhaps two hypothetical situations will illustrate the extremes. If a university indicated that, without any marked change in the academic emphasis of its department, it proposed to arrange to enrol somewhere around 70 graduate students instead of about 50, and if there were no changes at other universities and no potential developments which could be substantially affected, ACAP would presumably simply notify COU of the university's intention and recommend that it be recognized as an alteration in plan for the discipline. At the other extreme if a university proposed to begin a new programme designed to enrol fairly soon some 30 PhD students in a field of the discipline already well covered in other universities, it would clearly be necessary to obtain reaction from the discipline group and from other universities and perhaps even some expert advice, in order for ACAP to generate an advisory position concerning the impact of the proposal on the system and suggestions to the university concerned and to COU. As has been noted, if there had been advance inter-university discussions and agreement, this would be a positive factor in ACAP's assessment, but there is of course the possibility that the recommendation would call for modification of the university's intention; we take that to be the obvious consequence of system planning. Of course, the university could decide to act in a manner contrary to a COU recommendation, accepting whatever consequences would result; we take that to be the basic right of university autonomy. It is understood that a university will not act in this way without the notification and review described in the preceeding paragraph.

## PREAMBLE

The consultants were asked to look at those programmes specifically designated as leading to a graduate degree in planning or environmental studies. As noted by the consultants and the universities, work in these two areas is carried out by departments and in programmes other than those specifically named as such. These components being studied in other planning assessments as part of the offerings leading to graduate degrees in the various disciplines.

The consultants had no direct concern with undergraduate programmes nor with research activities unrelated to graduate programmes. The object of their study was to comment on the "adequacy of the present state of graduate work in planning and environmental studies in the province" and on the "adequacy of the concepts, plans and programmes for the future...".

The first part of this report will include separate discussions of planning and environmental studies under various headings. The second part contains general recommendations followed by recommendations concerning individual universities. As has been our custom with other disciplines, we prefix our recommendations to COU with the symbol 'C' to avoid confusion with numbering in the COU report.

## PLANNING

### Background

The consultants' report, pages A-5 to A-9, presents a history of planning in Ontario which ACAP will summarize here.

There was, in the early years of population and building expansion, namely the 1950's, a shortage of qualified planners in Ontario. At that time, there were only six schools in Canada graduating professional planners, two of these in Ontario. Today there are five Ontario schools which offer planning programmes with a total graduate enrolment of about 400. As a result, there appears to be no general shortage of trained planners in Ontario today.

Planning is a changing profession. Twenty years ago, two groups, those who were "apprenticed" in the offices of senior planning consultants, and those who were technically trained British "imports", dominated the profession and pre-empted various rungs of municipal and provincial planning ladders. From Queen's Park, Metro Toronto and the City of Toronto, they branched out during the 1960's into medium-sized cities and larger suburbs as those communities felt the growing need for planning operations.

Canadian-trained planning graduates found no trouble in entering the planning system in the 1950's, nor did a handful of American-trained graduates.

The intensive recruiting in the 1950's leaves us today with a planning profession whose leaders are fairly young. Those, who in their early 20's or 30's entered planning and worked their way up, are now only in their 40's or 50's. The average age in 1968 was 40.2. As a consequence, there is little "room at the top". Furthermore, most senior planners were moulded professionally 15-20 years ago. A large proportion were trained in engineering or architecture. This factor leads to a most important characteristic of Ontario's present senior planners, namely, that most of their planning activities have concerned the application and pursuit of development control. Few planners, at an effective level of power and authority, have devoted more than a small proportion of their time, energy, or technical skills to anything beyond development control.

Thus, according to the consultants, in effect, the senior planners of Ontario do very little planning. They are primarily planning administrators and have not emerged as an innovative force in the formation of public policy. Fortunately this position seems to be changing for the better. Both the narrow specialization and the restricted outlook of planners of the past are disappearing in the face of multi- and inter-disciplinary approaches and innovative techniques, new planning roles and functions, and a wider range of policy concerns.

This then is the new environment into which today's students are graduating, and ACAP has based its report on this view.

## Student Supply and Demand

The enrolment projections for graduate students in planning taken from the universities' submissions, are summarized in Table I. They constitute the projected supply of graduate planners within Ontario for the next five years. The number to graduate is not immediately evident from the enrolment figures. The Table shows the experience of the past five years. Since the master's programmes in planning last somewhat over two years, one might expect a ratio of .35 to .40 (or even higher) for annual graduation as a fraction of enrolment. That it has been much less than this is due mostly to the rapid growth in enrolment - indeed the number graduating each year has been about one-third of the previous year's enrolment. If growth now slows, the proportion graduating should rise. It therefore seems reasonable to say that the universities' projections imply about 150 graduates per year by 1977-78. Of these, York should produce about 75. The consultants who felt that a substantial number of York's graduates would not be professional planners, estimated a graduation rate of 63 for the province rather than 150. They felt, however, that there was also employment for the non-planners. The number of PhD graduates will be three or four per year for the next five years; the new Toronto programme will have graduated very few doctoral students in the 5 year planning period.

Will there be employment for these graduates? According to the consultants, there will be no over-supply of graduate planning students and most, if not all, will find jobs.

The basic reason the consultants hold this optimistic view is the recent broadening of functions of professional planners resulting in a wider market for the graduate planner's talents. The increased array of job opportunities in the planning area includes:

(1) environmental planning and environmental control activities at all levels of government;
(2) provision of technical advice to citizen-based organizations concerned with planning and environmental affairs ("advocacy" planning);
(3) new forms of local governments, particularly regional governments;
(4) public agencies at all levels of government concerned with special functions or services;
(5) large-scale private building and development corporations.

## TABLE I

## ENROLMENT OF STUDENTS OF PLANNING

### Full-time and Part-time Master's

The figures in parentheses show degrees awarded.
Figures from 1974-75 onwards are projections.

| University | 68-69 | 69-70 | 70-71 | 71-72 | 72-73 | 73-74 | 74-75 | 75-76 | 76-77 | 77-78 |
|---|---|---|---|---|---|---|---|---|---|---|
| Ottawa | - | 7 | 14 | 15 | 17 | 17 | 25 | 30 | 35 | 40 |
| | | (0) | (9) | (5) | (5) | - | - | - | - | - |
| Queen's | - | - | 13 | 26 | 41 | 43 | 44 | 50 | 54 | 56 |
| | - | - | (0) | (0) | (10) | - | - | - | - | - |
| Toronto | 38 | 38 | 44 | 50 | 68 | 70 | 75 | 80 | 80 | N.A. |
| | (17) | (15) | (20) | (21) | (19) | - | - | - | - | - |
| Waterloo | 26 | 38 | 42 | 47 | 53 | 49 | 49 | 50 | 50 | 50 |
| | (5) | (7) | (8) | (9) | (8) | - | - | - | - | - |
| York | - | 16 | 81 | 155 | 203 | 225 | 225 | 225 | 225 | 225 |
| | - | (0) | (0) | (32) | (43) | - | - | - | - | - |
| Total | 64 | 99 | 194 | 293 | 382 | 404 | 418 | 435 | 444 | [450] |
| | (22) | (22) | (35) | (67) | (83) | - | - | - | - | - |
| Graduate Enrolment | .34 | .22 | .18 | .23 | .22 | | | | | |

### Full-time and Part-time Doctoral

| | 68-69 | 69-70 | 70-71 | 71-72 | 72-73 | 73-74 | 74-75 | 75-76 | 76-77 | 77-78 |
|---|---|---|---|---|---|---|---|---|---|---|
| Toronto | | | (Intake 8 per year projected) | | | | | 8 | 16 | N.A. |
| Waterloo | 6 | 12 | 14 | 13 | 12 | 14 | 17 | 16 | 18 | 18 |
| | (1) | (0) | (1) | (0) | (4) | - | - | - | - | - |

N.A. - Not available

Because of these new types of jobs, the consultants argue that there appears to be no significant mismatch between the total of the universities planned number of graduates and employment opportunities. Consequently, the consultants recommend no cut-backs in enrolments except at York. At the same time, they advance no grounds for increasing the projected enrolments. ACAP agrees with this position but since our estimate of graduation numbers is much higher than that of the consultants, we counsel universities to use extreme caution in planning future enrolments, and in particular we urge York to follow the consultants' advice to reduce its present enrolment.

## Specialization

Traditionally, planning schools trained the generalist or comprehensive planner, but changes in job trends and demands have led to three new types of planners:

(1) the generalist with a specialty;
(2) the technical planner trained in a specific field;
(3) the planner trained for a specific role.

To train these planners, schools now offer a core curriculum and a number of specializations. The specializations depend on the size and strength of the department and its choice as to the type of planner it trains. Ontario schools are following the trend in training different types of planners but the consultants are concerned that in doing so they are neglecting the common core of knowledge and skills which should be in the background of all planners. On page A-27 the consultants recommend "that all planning schools should specify a common core of knowledge and skills covering basic planning theory, techniques and methods, to be required of all students, irrespective of their field of specialization."

The second problem seen by the consultants is that departments offering too many speciality fields are in danger of having an insufficient number of staff and students to provide an academically rewarding experience in some fields. This can be avoided by concentrating on one or two specialities (no more than three), or by training the broad, generic planner without specific specialties, or lastly, by setting up joint degree programmes with other relevant disciplines. (See page A-28.)

The consultants believe that a master's enrolment of 40 with a faculty of seven or eight constitutes a minimum size planning school. With the exception of Ottawa and Queen's all the other Ontario schools have achieved this size and expect to maintain it through the planning period. Ottawa and Queen's are discussed separately.

## ENVIRONMENTAL STUDIES

### Background

The concepts and development of environmental studies graduate work are found in the consultants' report, pages A-55 to A-60 and are briefly summarized here.

Some graduate work in environmental studies has been done for many years in most universities. Recent emphasis on the need for better identification of environmental work has led to the creation of specifically-named degree programmes in environmental studies. This assessment is concerned with these programmes only; substantial activities in the environmental area that have developed in a variety of other disciplines will be evaluated in other planning assessments. Several universities are now well into a process of resorting and restructuring intellectually and institutionally in the environmental field. There is now a sufficient basis on which to plan how the process should continue. A number of approaches to meet the needs of graduate training in this field are being developed.

Students expecting to meet environmental problems must be exposed to many disciplines through the faculty and students with whom they have contact. The university has the problem of reconciling the demands of breadth with those of depth and of harmonizing the environmental and traditional departmental loyalties of students and particularly faculty members.

In all the Ontario universities (except York which has a more integrated structure) the solution adopted has been to create an interdepartmental academic unit specially designed from its origin to accommodate these interdisciplinary needs.

No matter what academic structure is employed, environmental studies are seeking means of establishing and maintaining balance between man's activities and the eco-physical system. Thus the educational programmes may be viewed as an important potential vehicle for social and institutional change.

The consultants sum up this section by stating that "in general, we are cautiously optimistic about the contribution that the existing and proposed programmes at the master's level are making to the graduate training of those who will be dealing in the future with our environmental problems, and about the quality and enthusiasm of the faculty members associated with these enterprises."

### Enrolment Projections

The consultants found it very difficult to make predictions on the manpower requirements in the environmental studies area. Interest in and concern with our environment is of on-going importance and will require increasing numbers of trained specialists. Our consultants see these specialists as mainly discipline-oriented and argue that the major need for manpower will be met through graduates from specialized disciplines rather than generalized environmental studies programmes.

Although they make no specific comment on whether or not too many graduate environmentalists are emerging from Ontario programmes, they do encourage two nascent ones (Toronto and Western) to put forward definite plans for master's work. This would seem to indicate that Ontario is not now, nor will in five years time, be overproducing environmental studies graduates.

Involvement of Social Sciences and Humanities

One of the main faults the consultants have to find with the Ontario environmental studies programmes as they now stand is their lack of involvement with the social sciences and humanities. They have suggested the creation of a task force to monitor this aspect of the programmes. While ACAP endorses the recommendation of greater real participation of the social sciences and humanities in environmental studies, but we do not feel that this suggested method of ensuring cooperation is practical. We would rather draw the point to the universities' attention and suggest that its importance be communicated to the Appraisals Committee as one factor to consider when they conduct the appraisals proposed in this report. It may influence the choice of consultants as well as their evaluation of the programmes put forward.

## GENERAL RECOMMENDATIONS

### Recommendation C1

> It is recommended that mid-career and refresher courses for practising professionals in planning and environmental studies be offered by the Ontario universities.

ACAP agrees with the consultants on the value of mid-career and refresher courses in keeping planners and other professionals up-to-date in their fields. Although we do not know what eventual form these courses would take, they might be senior undergraduate, or perhaps graduate level courses, not necessarily leading to a degree. ACAP would like to commend Queen's University and the University of Toronto for the steps they have taken in this area. Because of a comment in the Discipline Group response, it may be well to indicate that experience in other subjects suggests that mid-career study cannot be too successfully integrated with master's programmes.

### Recommendation C2

> It is recommended that individual universities and the Appraisals Committee take note of the importance of the involvement of the social sciences and humanities in the environmental studies programmes on a real, not merely token, basis.

### Recommendation C3

> It is recommended that the Planning and Environmental Studies Discipline Group, in its normal role, in consultation with ACAP, review the coverage of specialties in the province, keeping in mind the consultants' comments concerning number, size and balance of the fields offered by each department or school for specialization.

The consultants feel that too many specialties are being offered in most schools, often to a subcritical number of students. They consider that any individual planning programme should offer no more than three specialties and that these should be chosen, taking into account what other universities offer. The question of where urban planning should be studied is a problem that the Discipline Group should discuss. The Discipline Group suggests it be replaced by two discipline groups. In view of the close academic cooperation between some of the "planning" programmes and some of the "environmental studies" programmes, ACAP is not at this time convinced of the desirability of this move, but will discuss it with the Discipline Group.

## UNIVERSITY RECOMMENDATIONS

### Recommendation C4

> It is recommended that the University of Guelph consider the comments made by the consultants concerning the function of the Centre for Resources Development, the involvement of the social sciences and humanities, and its proposed course-only degree, and submit for appraisal its master's programme in resource development. They should cease to enrol new students after October 1977, if a favourable appraisal has not been obtained.

Guelph's response indicates that the University is seriously considering the consultants' criticisms and is proceeding to take action to meet them. ACAP therefore recommends that after a period of eighteen months there be an appraisal.

### Recommendation C5

> It is recommended that the University of Ottawa develop an interdisciplinary master's degree programme in regional planning with an administrative structure that would provide it with an autonomous academic identity and have this new programme appraised. If a successful appraisal has not been obtained by the end of the fall term, 1976, enrolment of new students in the Master's of Arts in Geography (Regional Planning) programme should cease.

The consultants think that as the programme stands at present, it is subcritical in size and of dubious quality. On the other hand, they feel that there is a case for a planning programme in Ottawa because of the need to provide mid-career and refresher courses to government personnel, because of its unique bilingual atmosphere, and because the University already has excellent facilities to provide such a programme.

ACAP notes the University's response, and in particular, the University's intention of developing "an autonomous academic programme with its own designated degree." We would also like to express our agreement with Dr. Guindon's last paragraph about the relative importance of administrative structure.

### Recommendation C6

> It is recommended that Queen's University give careful consideration to the consultants' comments concerning faculty numbers and support, and submit its master's degree programme in planning for appraisal, ceasing to enrol new students at the end of the fall term 1977, if a favourable appraisal has not been obtained.

The programme at Queen's seems to be in a developmental stage under the supervision of its new director. The consultants praise the wisdom of specializing in a restricted field of planning, namely, regional planning and development. Their comments lead us to expect that given a few years to complete reorganization, the programme at Queen's will be of good quality. We note that Queen's has been giving consideration to the consultants' comments. We encourage the University to continue to do so and submit the programme for appraisal to be completed by the end of the fall term, 1977.

Recommendation C7

> It is recommended that the University of Toronto continue its master's work in planning according to its plans, and that it begin to offer doctoral work in planning at the level of enrolment suggested by the consultants.

The Toronto master's programme in planning is of good quality and is staffed by highly-qualified and well-trained faculty members.

The consultants recommend that the proposed doctoral programme begin but lay heavy emphasis on the need for substantial improvement in existing space resources and facilities. They also agree with the proposed yearly enrolment of eight doctoral students.

In its response to the consultants report, Toronto gave details of additional space allocated to the master's and doctoral programmes. This paragraph, together with the updated projections of student enrolment, were sent to the consultants for comment. (See page C-12.)

The consultants replied as follows:

"New Enrolment Projections and Space Improvements: As you know the enrolment projections we listed were taken from the Department's submission; the new figures presumably represent new circumstances. We probably have no quarrel with the projected revised master's figures, but the PhD numbers appear a bit high to us. We feel that the Department should go slow here, and over the next several years (i.e. between 1974 and 1976) the total number of PhD students should not exceed eight. In any case, the improvements in space resources noted in your letter does answer our objection, especially if the PhD student numbers are revised downward from those listed in your letter."

The space provisions appear to be adequate and indeed the University is aware of the problem and plans to improve space resources this fall. The consultants are suggesting that the doctoral programme stabilizes at eight students for two or three years. This is due to the size of the teaching staff as the consultants say "the school only barely achieves a sufficient number of faculty to justify a doctoral programme".

ACAP therefore recommends the university begin doctoral work but at the lower level of enrolment suggested by the consultants until additional staff resources can be added to the programme. It may be noted that the possibility may exist of appointment on a part-time basis of professors at other universities.

The consultants show concern over Toronto's new policy of not requiring students to take a set of common core courses. ACAP notes the University's response to this, in particular that the student still must cover certain areas but that now he has a choice of courses to do so.

Recommendation C8

> It is recommended that the University of Toronto continue to develop, and submit for appraisal, a proposal for a master's programme to be offered by the Institute for Environmental Studies, keeping in mind the consultants' recommendation that there be a substantial admixture of the social sciences and humanities.

The consultants' main concern with this programme lies in its possible difficulties in ensuring stable and serious faculty involvement. The Institute will have the usual problems in arranging for the time of cross-appointed staff. The University of Toronto has a number of institutes and centres and the questions associated with cross-appointments and the success in dealing with these problems depends sensitively on the personnel involved and the arrangements made with the graduate school. There will also be the matter of securing real participation of social scientists and humanists. Staffing concerns are, of course, a central concern of the Appraisals Committee.

We note from the University's response that steps are underway to broaden the scope of the research activity in the Institute.

Recommendation C9

> It is recommended that the University of Waterloo continue its master's and doctoral work in planning according to its plans.

The consultants have made several suggestions concerning graduate work in planning at Waterloo. The work done is of good quality but the consultants feel that the University should consider carefully the distinction between its bachelor's, master's and doctoral work and whether or not its planning programmes are becoming too ecology-oriented. Their final cautionary note concerns the diversity of disciplinary backgrounds of the faculty members and the recent loss of several senior professors.

The University of Waterloo's response seems to us to indicate acceptable work at the master's and doctoral level. We make no comment on undergraduate work. ACAP welcomes the University's assurance that all of the work contains a "strong planning thrust" because we agree with the consultants that this should be central in any school of planning.

Recommendation C10

> It is recommended that the University of Western Ontario continue its master's of engineering programme in environmental engineering with its present objectives.

Recommendation C11

> It is recommended that planning approval be given for a master's programme in environmental studies at the University of Western Ontario if the University should decide to proceed with the development of such a programme.

The master's of engineering in environmental engineering programme is given by the Faculty of Engineering Science and draws all but a quarter of its students from that discipline. The consultants state that the "MEng has a definite character of its own, and its potential usefulness derives, surely, from its special character". This programme provides good quality training for engineering graduates but the consultants feel it should not be broadened to include training of social science and humanities students. The consultants recommend, and ACAP concurs, that the initiation of an environmental degree programme with a strong social science and humanities emphasis would be a preferable solution to the growing interest of the University's non-engineering students in environmental problems. There are no planning reasons why another environmental studies master's programme should be opposed, but it would, of course, have to pass appraisal. Assessment of the extent of involvement of the social sciences and humanities would be an important part of the Appraisals Committee's task.

The University of Western Ontario, in its response, agrees that the MEng programme should not be broadened and states that they are looking into a new programme in which the social sciences and humanities would have equal weight with other components of the programme.

Recommendation C12

> It is recommended that York University continue its Master of Environmental Studies programme in accordance with its plans which include reappraisal. Any area which has not received a favourable appraisal by October, 1975, should cease enrolment of new students.

This unique programme was appraised in 1970 and was approved "for a programme for professional training in the areas normally called

Urban and Regional Planning". There was at that time an intention to move later into areas described as environmental science. However, with the addition of staff and a continuing re-evaluation of the philosophy of the faculty, this concept has been modified. Some substantial changes in philosophy have, in fact, occurred since the consultants' visit. York now states that the general thrust of almost all its students is towards planning, in the same general sense as that used at Waterloo. The University realizes that the time is now ripe for an appraisal of its altered programme and a proposal is before the Appraisals Committee.

A major concern shown by the consultants about the programme in its present form relates to the high student-staff ratio. It is suggested that York add to the faculty and reduce the number of students. Present enrolment is somewhat higher than the projected steady state level and should be reduced to at least that level. A lowering of the student-staff ratio would also presumably give the faculty more time for scholarly activity and development. The constant attention given to the students' individual study programmes produces very heavy workloads and few hours for pursuing scholarly research.

## COU ACTION

### Recommendation C13

It is recommended that COU adopt the recommendations of this report, and, in the expectation that its members will act in accordance with them, COU inform OCUA that it has adopted these recommendations and request that the embargo on planning and environmental studies be now removed, in accordance with the original announcement of the Minister that new graduate programmes would be embargoed until, for each discipline, a planning study has been conducted.

## RECOMMENDATIONS

C1

It is recommended that mid-career and refresher courses for practising professionals in planning and environmental studies be offered by the Ontario universities.

C2

It is recommended that individual universities and the Appraisals Committee take note of the importance of the involvement of the social sciences and humanities in the environmental studies programmes on a real, not merely token, basis.

C3

It is recommended that the Planning and Environmental Studies Discipline Group, in its normal role, in consultation with ACAP, review the coverage of specialties in the province, keeping in mind the consultants' comments concerning number, size and balance of the fields offered by each department or school for specialization.

C4

It is recommended that the University of Guelph consider the comments made by the consultants concerning the function of the Centre for Resources Development, the involvement of the social sciences and humanities, and its proposed course-only degree, and submit for appraisal its master's programme in resource development. They should cease to enrol new students after October 1977, if a favourable appraisal has not been obtained.

C5

It is recommended that the University of Ottawa develop an interdisciplinary master's degree programme in regional planning with an administrative structure that would provide it with an autonomous academic identity and have this new programme appraised. If a successful appraisal has not been obtained by the end of the fall term, 1976, enrolment of new students in the Master's of Arts in Geography (Regional Planning) programme should cease.

C6

It is recommended that Queen's University give careful consideration to the consultants' comments concerning faculty numbers and support, and submit its master's degree programme in planning for appraisal, ceasing to enrol new students at the end of the fall term 1977, if a favourable appraisal has not been obtained.

C7

It is recommended that the University of Toronto continue its master's work in planning according to its plans, and that it begin to offer doctoral work in planning at the level of enrolment suggested by the consultants.

C8

It is recommended that the University of Toronto continue to develop and submit for appraisal, a proposal for a master's programme to be offered by the Institute for Environmental Studies, keeping in mind the consultants' recommendation that there be a substantial admixture of the social sciences and humanities.

C9

It is recommended that the University of Waterloo continue its master's and doctoral work in planning according to its plans.

C10

It is recommended that the University of Western Ontario continue its master's of engineering programme in environmental engineering with its present objectives.

C11

It is recommended that planning approval be given for a master's programme in environmental studies at the University of Western Ontario if the University should decide to proceed with the development of such a programme.

C12

It is recommended that York University continue its Master of Environmental Studies programme in accordance with its plans which include reappraisal. A proposal is now before the Appraisals Committee. Any area which has not received a favourable appraisal by October 1975 should cease enrolment of new students.

C13

It is recommended that COU adopt the recommendations of this report, and, in the expectation that its members will act in accordance with them, COU inform OCUA that it has adopted these recommendations and request that the embargo on planning and environmental studies be now removed, in accordance with the original announcement of the Minister that new graduate programmes would be embargoed until, for each discipline, a planning study has been conducted.

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# APPENDIX A

# CONSULTANTS' REPORT
TO THE ADVISORY COMMITTEE ON ACADEMIC PLANNING
COUNCIL OF ONTARIO UNIVERSITIES
ON
GRADUATE DEGREE PROGRAMMES IN
PLANNING AND ENVIRONMENTAL STUDIES
IN ONTARIO UNIVERSITIES

I. M. Robinson

J. R. Weir

T. M. Pen[illegible]

March 1974

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## PREAMBLE

### Terms of reference

It is essential to begin this report by raising, and trying to reduce, the problem of definition. Throughout our investigation it has been clear to us that the disciplines, or groups of disciplines, that we were studying, are understood and related in a large number of different ways. It is not merely that Planning and Environmental Studies are near-newcomers in the curricula of the universities, and have special problems in gaining their rightful place within them. It is not merely that they are subject, as are all academic disciplines, to their own internal ideological disputes. It is that there is unclarity over the extent to which there are even disciplines to define and study: especially in the case of Environmental Studies. This unclarity leads to situations in which the needs and demands of academic units which teach Planning or Environmental Studies are almost impossible for hard-pressed administrative officers to assess fairly.

We cannot resolve all these unclarities. On the contrary, we must emphasize that the Ontario Universities must expect to live with them for an indefinite period. What we can try to do, however, is to show how each institution is attempting to deal with the problems that they raise, and assess the particular virtues and limitations of their very varied approaches. But we must stress that the concerns that were frequently voiced to us, to the effect that the terms of reference of our study were too wide, or (more commonly) too narrow, seemed to us healthy and reasonable, and to come from inevitable confusions in the state of the disciplines.

(1) After preliminary discussion of the terms of reference of our investigation, it was clear to us that we had to confine our study to actual or emerging named post-baccelaureate degree programmes in either Planning or Environmental Studies. We had no direct concern, therefore, with undergraduate degree programmes in these areas, even though these do exist and do affect the objectives of the departments in which they are found. We had no direct concern, either, with research programmes in these areas, even though these have a critical effect on the nature of degree programmes. And we had no direct concern with programmes in planning or environmental studies that are not specifically so named, even though there are a large number of these whose existence will often be a sufficient reason for a university's not having a named programme.

These restrictions, for which we were frequently criticized, seemed, and still seem, inevitable ones for ACAP to impose upon us. But they entail that our report cannot profess to be a state-of-the-discipline document. It is a report on the state of the programmes. They also entail that where other degree programmes include training in planning or environmental studies, the assessment of these should be part of ACAP reports on those disciplines named in the description of those degrees. For example, comments on the planning components in Geography programmes belong in the Geography report. We offer no judgement on whether or not that report meets this need.

(2) Although we only investigated named degree programmes wider questions inevitably forced themselves upon us when we tried to assess them. These range far beyond the inevitable questions that changes in the role of (say) the professional planner raise. They include vast issues about the proper way to educate people to deal with the problems of our physical, social, cultural, urban, and rural environment. The most a document like this one can do is show awareness of the places at which these issues arise, and note obvious inadequacies in the understanding of them. For a more comprehensive treatment one must look to a generation of practitioners of the disciplines we are concerned with.

(3) The combination of Planning and Environmental Studies in one study is one more manifestation of the ill-defined state of the subjects. While they are natural enough neighbours, it is equally easy to suggest they be separated, or that each be studied in combination with something else (e.g. Planning with Geography). We have tried to shoulder this combined burden uncomplainingly, but have not tried to force a unity on our study when we could discern none in its subject-matter. The disparity between the two fields is greatly increased when one notes that Planning schools have as one of their major objectives the satisfaction of the manpower needs of a recognized profession, and that the same cannot be said of Environmental Studies programmes either now or, probably, in the future. It is further increased by the fact that professional training in Planning at the Universities has existed for some time, and in consequence the question of possible over-proliferation can be raised with regard to it in the way that it has to be raised in other ACAP studies; yet the situation in environmental studies is manifestly embryonic, and no such question can be asked at all in 1974 with regard to it--only questions about future objectives, promise, and demands. Our comments on the latter are bound to be at a much higher level of generality than those on the former.

## Programmes evaluated

The programmes that are evaluated in the report are as follows.

### Planning

| | |
|---|---|
| Ottawa: | M.A. in Geography (Regional Planning) |
| Queen's | M.Pl. in Urban and Regional Planning |

Toronto: M.Sc. in Urban and Regional Planning
Ph.D. in Urban and Regional Planning (proposed)

Waterloo: M.A. in Regional Planning and Resource Development
Ph.D. in Regional Planning and Resource Development

York: M.E.S. --- "planning component".

We have not been directly concerned with the Planning component in the Geography programme at the University of Western Ontario, or the undergraduate programme offered by the School of Urban and Regional Planning at Waterloo, which leads to a B.E.S. degree.

Environmental Studies

Toronto: Institute for Environmental Science and Engineering (proposed Master's Programme)

Guelph: Centre for Resources Development: M.A. and M.Sc. in Resources Development

York: Faculty of Environmental Studies: M.E.S.

Western Ontario: M.Eng. (Environmental Engineering).

We have not attempted to evaluate the state of environmental studies as a whole in any university. We should state also that although we have received informal indications that there might be proposals for a Ph.D. in environmental studies at York, and might be some interdisciplinary initiatives leading to named degree programmes at McMaster, further enquiry has not yielded sufficiently concrete information for us to consider either possibility in this document. In the case of Western Ontario, active discussions are under way that may lead to a new Master's degree proposal in environment studies, and although this is not yet formalized, and may therefore not be approved internally, its relationship to the existing programme does call for us to comment upon it.

The School of Urban and Regional Planning at Waterloo is a division within the Faculty of Environmental Studies. We have found that our investigation of the Waterloo programmes in Planning required us to consider, and comment upon, some features of the wider responsibilities of that Faculty, and our comments will appear in this part of the report.

Methods of investigation

The consultants met with the Discipline Group in April, 1973. We made site visits to the Universities in June: owing to Dr. Weir's illness, only two of the consultants were able to make the visits to Ottawa and Queen's; but all the consultants visited Toronto, York, Guelph, Waterloo, and Western Ontario. There was also a shorter visit, arranged at our suggestion, to

McMaster in September. We have had three subsequent meetings, each of several days' duration, in Toronto through the fall and winter of 1973/4.

On the site visits we met with the administrative officers responsible for the academic units offering, or proposing, the programmes we were to study; with faculty groups from those units; with faculty groups in related and interested departments; with students enrolled in the programmes; and with graduates of those programmes. At each university we met with each group separately. We would like to express our appreciation for the courtesy and care shown to us, both by those whom we met, and by those who arranged the meetings for us. We are convinced that the groups we met were, in each case, as representative as circumstances permitted them to be.

In addition to the information supplied to ACAP by the academic units concerned, we requested, and received, additional information about the academic records and progress of students in the programmes, and about their subsequent employment. We also requested and received representative dissertations and reports that had been accepted as partially fulfilling the degree requirements in the ongoing programmes. Our stated assumption was, and remains, that the work submitted to us was "work that the department or school regards highly as representative of the work in its programme. In each case we were able to study five to ten documents, usually theses, from each institution. This additional information has proved of great importance, and we are grateful for the trouble taken in making it available to us.

The decision that this report should not contain reference to any programme in Landscape Architecture was a decision taken by the consultants, at the time of our first meeting with the Discipline Group. It was our recommendation at that time that a separate consultants' investigation be undertaken.

## PART ONE: PLANNING

### I. Summary "Profile" of Ontario Planning Schools, Planning Students, and Planning Graduates[1]

There are currently five universities in Ontario which offer graduate education programmes in Urban and/or Regional Planning and which award master's degrees: University of Toronto, York University,[2] University of Waterloo, Queen's University, and University of Ottawa. In terms of the name of the degree awarded, the University of Toronto offers the Master of Science degree in Urban and Regional Planning (M.Sc.); York University, a Master in Environmental Studies degree (M.E.S.); University of Waterloo, a Master of Arts degree in Regional Planning (M.A.); Queen's University, a Master of Urban and Regional Planning (M.Pl.); and University of Ottawa, a Master of Arts degree in Geography (Regional Planning).

Each of the planning schools[3] requires, at a minimum, two years of graduate study beyond the undergraduate degree for the master's degree.

Total enrolment for the master's degree in the five Ontario planning schools during the past five years, from 1968/69 through 1972/73, has more than tripled, from 62 students to 234. Likewise, the annual intake of new students during this period has more than tripled, from 35 to 117. (See Table I.)

In 1972 the schools varied considerably in the size of their student populations, varying from 17 at Ottawa to 77 and 68 at York and Toronto respectively; and in the size of their total faculties, ranging from almost 4 in Queen's to 9 in Toronto and 10 in York. This, of course, results in different faculty/student ratios, ranging from a low of 1:3 at Ottawa and Waterloo to 1:10 at Queen's. (See Table II.)

The annual number of master's degree graduates has increased by 2.5 times, from 22 to 54, over the previous five years. During this period, the number of graduates has totalled 185, or an average of 37 planning graduates per year. (See Table IIA.)

Approximately one-half of those students entering Ontario planning schools, or one-fourth of the total number of students actually enrolled, eventually emerge with a master's degree.[4] This is true for the five-year average, as well as for most individual years. (See Table IIA, I.)

About four-fifths of the students that have been enrolled in the Ontario planning schools over the past five years took their undergraduate degree in a Canadian university. (See Table III.)

Following a pattern common to graduate planning education elsewhere in Canada (as well as in the U.S.A.), Ontario planning schools draw upon students with a variety of undergraduate subjects. However, it appears that Ontario schools attract a higher proportion of students with an undergraduate background in the social sciences and humanities, such as sociology, enconomics, geography, philosophy, and history, than other Canadian planning schools. Over the five-year period, almost three-quarters of the students enrolled in Ontario planning schools had an undergraduate background in one of these subjects. (See Table IV.) In 1968 only slightly more than half of the students in all Canadian planning schools came with a background in the social sciences or humanities; 38% have an undergraduate degree in architecture or engineering.[5] Undoubtedly, the Canada-wide figure for students with undergraduate degrees in the social sciences or humanities has increased by now (we do not have data on all Canadian schools for recent years to confirm this), but we think it very unlikely to have reached the existing proportion in Ontario schools.

Over the five-year period, the proportion of students in Ontario planning schools with a background in the social sciences or humanities has remained fairly constant on an annual basis, varying by no more than 4%. The major changes during this period occurred in the proportion of students with architecture or engineering degrees--it declined from 25% in 1968/69 to 14% in 1972/73; while the proportion in the "other" category (which includes the physical and biological sciences, business, undergraduate planning degrees, etc.) has increased from 4% to 12%. (See Table IV.)

In 1968/69 a little over half of all students in Ontario planning schools received some form of financial support to help them complete their studies. In the following year, this proportion rose markedly, to 85%, but it then declined and since 1970/71 has averaged around two-thirds. This pattern varies, of course, from school to school, with Waterloo consistently having the highest proportion (almost 100%) of students with some form of assistance. (See Table V.)

About two-thirds of Ontario planning graduates over the last five years found immediate employment in the Province of Ontario. This proporation has been generally true every year, except for 1971/72, when less than 3/5 found their first job in Ontario. (See Table VI.)

If we look at the region where Ontario planning graduates eventually work, and not just at the geographic position of their first job, we still find a high proportion working in Ontario. In 1968, 75% of all Ontario planning graduates up to that time (primarily University of Toronto graduates) were then residing (and presumably working) in Ontario[6]; this compares with 68% of the 1968/69 Ontario graduates who found immediate employment in Ontario. (See Table VI.) 1972 data show that the very strong trend for graduates of Ontario schools to work in Ontario has continued.[7] The higher proportion of all Ontario graduates working in Ontario, compared with the proportion finding immediate employment in the Province, would seem to indicate that many of the graduates whose first job was in other provinces (or indeed outside the country altogether) after awhile end up working in Ontario.

In any case, Ontario planning schools appear to be more "regionally" oriented in terms of the geographic destination of their graduates than other Canadian planning schools. Both Dr. Hodge[8] and TPIC[9], found that compared with other Canadian planning schools, a much higher proportion of graduates of Ontario schools end up working in the same region in which their school is located; graduates of other Canadian planning schools tend to practice planning outside the region in which they took their graduate education in planning. The "regional" orientation of Ontario planning schools varies, of course, from one school to the other. As expected, a large percentage of graduates from the University of Ottawa work in Quebec, not Ontario. The University of Toronto seems to be the most oriented to Ontario. (See Table VI.)

Most Ontario planning students, upon graduation, find immediate employment with government--either federal, provincial, regional or municipal. (See Table VII.) Looking at the type of employment all Ontario planning graduates end up in, we find that in 1968 almost 70% of the graduates up to that time were employed by government; of these, three-fifths were employed by municipal governments.[10] The second largest source of employment at that time was consulting. In general, this employment pattern did not change much by 1972/73. The largest single area of employment for all Ontario Planning graduates up to that time was government, with consulting still the second major source of employment. However, several specific changes occurred which are significant and may be prophetic for the future. Within government, the proportion employed by municipal governments has declined, while the proportion finding jobs in the federal government, the provincial governments (including the new conservation authorities), and in the new regional governments that have been established in recent years in Ontario (and elsewhere in Canada as well) has risen.[11]

## FOOTNOTES

[1] Unless indicated otherwise, the information included in the Summary and Tables is based on data supplied by the universities to ACAP, or on special surveys and field visits conducted by the consultants. Information from two other sources are also used: (1) a special study by Gerald Hodge, entitled The Supply & Demand for Planners in Canada, 1961/1981 (A Report to Central Mortgage and Housing Corp., 1972), which was conducted in 1966/1967 and updated in 1971; and (2) a survey of Canadian Planners undertaken by the Town Planning Institute of Canada in 1968, entitled The Typical Canadian Planner.

[2] The Faculty of Environmental Studies at York University offers a broad curriculum with a wide-range of multi-disciplinary graduate activities focusing on man/environment relationships in a variety of problem settings. The Faculty does not consider that it is educating (or training) "planners" as such, though a large proportion of the students do "specialize" in urban and/or regional planning in their programme of studies and, in fact, seek and succeed in obtaining jobs as planners. Based on information supplied by the Faculty for 1972/73, we estimate that about one-third of the students have selected urban and/or regional planning as their "area of concentration." Consequently, we have applied the proportion, one-third, to the data on all students provided by the Faculty, and throughout this report we use the appropriate smaller numbers to represent the "planning" component for York University.

[3] Hereafter referred to as "schools", although administratively, they might not be actually called a school.

[4] Dr. Hodge found, for the 1951/1961 period, a higher "input/output" index for all Canadian planning schools; that is, three-quarters of the new enrollees eventually graduated. (Hodge, 1972, p.36, Table 17.)

[5] TPIC Survey, 1968, Table 7.

[6] TPIC Survey, 1968, Table 19.

[7] Based on incomplete data provided by each of the schools.

[8] Hodge Report, 1972, p.39, Table 19.

[9] TPIC Report, 1968, Table 17.

[10] TPIC Report, 1968, Table 18.

[11] Mr. Hugh Lemon, who is responsible for professional development activities in the School of Urban and Regional Planning at the University of Waterloo, has been maintaining since 1970 a file of advertisements of planning positions as they appeared in various

newspapers, particularly the Toronto Globe and Mail, and circulars of the Town Planning Institute of Canada. He reports that preliminary analysis of the information from this survey (admittedly not "scientific" or "representative") indicates not only an increased total demand for planners during the period September 1970 to September 1973, but also a significant change in the types of positions being advertised. An increasing number of advertisements is for positions in conservation authorities, resource development departments, and environmental departments and agencies of provincial governments and the federal government, in new regional governments, and in large private development companies. These findings which he reported in conversation, are also borne out by Mr. Lemon's report on Highlights of the Professional Liaison Office (May 1973) for the Waterloo School of Urban and Regional Planning. This report includes
(a) a breakdown of employers of all Waterloo planning graduates who replied to a School questionnaire;
(b) a list of topics included in the studies, surveys, and reports undertaken by Waterloo planning graduates as part of their work; and
(c) a list of the types of agencies in which Waterloo planning students have obtained temporary employment to satisfy their "internship" requirement. There is clear evidence from this information that planning students are finding employment in new types of government departments and agencies and are being called upon to fill new types of positions, even within the "established" departments and agencies.

## II. Ontario Planners and Ontario Planning

All Ontario planners have not been--and will not be in the future--graduates of Ontario schools. Similarly, all graduates of Ontario planning schools have not sought employment nor have they ended up employed in the province of Ontario--and we would not expect all future planning graduates to seek employment in this province. Nevertheless, the fact is that the bulk of Ontario planners did receive their planning degree or diploma from an Ontario planning school, and the great majority of Ontario planning graduates either find their first job, or end up employed in this province. Indeed, Ontario planning schools appear to be more regionally-oriented in terms of the geographic distribution of their graduates than other Canadian schools. Therefore, it would be helpful to review the past and current characteristics of Ontario planners and Ontario planning activities, and the emerging trends therein[1], as the basis for our later evaluation of the current and future state of graduate work in Planning in this province.

The first significant fact about the state of Ontario planning is that the shortage of qualified professional planners which was chronic during the early expansion years of the planning process (i.e. during the 1950's) in Ontario, and, indeed, throughout Canada, is now a matter of history. Until 1967 there were only six planning schools in the whole country (from west to east: UBC, Manitoba, Toronto, Waterloo, McGill and Montreal), who graduated no more than 350 trained planners in the 15 years from 1951 to 1966. (Hodge, op. cit., Table 17.) In the following five years, between 1967 and 1971, an additional three universities added graduate work in Planning, and in this period the total number of graduates from the Canadian planning schools was about equal to the number graduated in the previous 15 years. (ibid., p.8.). In 1971/72, there were an estimated 365 students enrolled in master's degree programmes in the 8 Canadian planning schools.[2] (In 1972 another university, Calgary, instituted a new programme, and McGill began a newly-revised programme).

Growth in planning education has been just as dramatic in Ontario. Today, as noted earlier, there are five universities offering graduate work in Planning, with enrolment totalling about 250 students with one of them, Waterloo, offering an undergraduate programme as well; in addition, one school, Ryerson, offers an undergraduate programme only, and there are three community college programmes for planning technicians.

As a result of the growth in graduate work in Planning in Canadian universities, there appears to be no general shortage of trained planners in Ontario today. Localized shortages of planners do still exist, but these are the product of special geographic circumstances, or of local inability to attract planners with particular skills or necessary experience, or to meet going salary levels.

More significant perhaps than the increase in the number of professionally trained planners in Ontario over the years have been the changes in the planners themselves--their training, background, skills, roles, and functions.

The early planners in Ontario (that is, those employed in the 1940's and 1950's) came largely from three sources. First, a small nucleus of pioneers of the pre-war and wartime years (that is, World War II), who came from diverse backgrounds and disciplines, and were the impetus for, and the draftsmen of, the original planning and housing legislation, and who provided the leadership for the fledgling municipal, provincial and federal planning and housing agencies of the early post-war period. Second, a core of young persons, some well-trained, others with only minimal technical qualifications, who "apprenticed" in the offices of several well-known senior planning consultants (notably Dr. E. G. Faludi) and individually performed almost all of the municipal and provincial planning which took place in Ontario during the immediate years following the second World War. Third, a relatively large number of technically trained British planners, some with architectural qualifications, others trained as chartered surveyors, who were "imported" by the Central Mortgage and Housing Corporation in successive waves during most of the Fifties.

Very quickly, the latter two groups--the consultant-trained nucleus and the British imports--effectively dominated and preempted the various rungs of the municipal and provincial planning ladders. The paths by which they progressed within the system obviously varied, but most characteristically they began by passing through the three large public agencies then operating--Queen's Park, Metro Toronto and the City of Toronto--and then on into the medium-sized cities and larger surburbs as the latter communities started and then broadened their planning operations.

In the meantime, the new Canadian-trained planners, arriving on the scene from the few universities then affording technical training in planning, were able to enter into the system easily. A handful of European-trained professionals also made their way into the Canadian planning scene, but not, generally, in the formative 1950's, when the nuclei of planning staffs were effectively established. Finally, a relatively small number of American-trained planners, who were then emerging in large numbers from U.S. planning schools to meet the expanded demands of their own huge federally-financed planning, transportation, and renewal programmes, managed to find their way across the border.

Regardless of their source or background, three main characteristics of Ontario planners can be discerned during this period, each of considerable importance in understanding the Ontario planning scene today. First, and most importantly, is the extent to which the main roles in public planning were taken over by persons who, in the middle and late 1950's were relatively young and had extensive careers in prospect. Most of the professionals who had worked themselves into senior agency positions in this period were, at the time, in their twenties or early thirties. Today, these planners, who have effectively held on to the reins of institutional power and authority, are still largely in their forties or (at the latest) early fifties with ten to twenty years of effective professional life remaining. (According to the TPIC survey, the average age of Ontario planners in 1968 was 40.2 years, at that time, was the highest for all Canadian provinces.) As a consequence, it is rare today to find any public planning agency in the Province where there is much "room at the top". Equally rare is an agency where those at the top were not professionally moulded in an era now 15 or 20 years past.

A second characteristic of the early planners is the comparatively large proportion (about 38%) who had been trained in engineering or architecture. (Table IV). It is not surprising that the substantive focus of planning in those days was on space utilization and on the channels of communication among space users, and, in general, on physical development of cities and regions. These early planners essentially viewed (and to a large extent, still view) planning as an instrument of physical change in which the control of land use and the provision of utilities, services, and community facilities are the critical determinants of community growth and development.

The third characteristic of Ontario planners, and related to the previous, is most important. Whatever their source, training or origin, these early planners (that is, today's senior planning officials) spent most of their time and energy in their planning activities in the application and pursuit of development control. Whatever the specific planning activity (be it the official plan, or district plan, or zoning, or sub-division regulations) the name of the game, in Ontario at least, has been development control. Few of the planners at effective levels of power and authority have devoted more than a small proportion of their time, energy, or technical skills to anything beyond the regulation of private development and the formulation of facility and service programmes required to support and accommodate such development.

As a consequence of this latter characteristic, it is not an exaggeration to say that senior public planners in Ontario have, in effect, been doing very little planning; they have served mainly as planning administrators, performing chiefly housekeeping functions. Equally important, while they have clearly carried out their jobs skillfully and diligently, these planners have not emerged as an innovative force in the area of public policy formation. (Nor, indeed, has the planners' professional institutional organization, the Town Planning Institute of Canada, which has similarly devoted most of its energies to internal housekeeping matters and has offered its members little more than a basic trade union service; most disappointingly, it has provided little of its professional expertise and influence to matters of important public policy.)

Fortunately, this rather bleak picture of Ontario planners and Ontario planning activities appears to be changing. As the world with which the planners deal changes, so, too, the planners' own world is changing, and changing rapidly. The narrow professional specialization and outlook which has hitherto characterized the planner and the planning profession is largely a thing of the past. Multi- and interdisciplinary approaches and innovative techniques (e.g., systems analysis), new planning "roles" and functions (e.g., specialist planner, advocacy planner), and a wider range of policy concerns (e.g. for social and economic development, environmental protection), are all emerging, and converging, to change the practice of planning drastically. These changes are discussed in further detail in later sections of this report.

This, then is the picture (admittedly broad-brushed) of Ontario planners and Ontario planning, as it has evolved over the years. But, what about the future? Is the current surplus of trained planners likely to continue? How well are the Ontario planning schools currently responding to the new changes in professional planning practice, and how well are they likely to respond in the years ahead? We turn to these questions next.

## FOOTNOTES

[1] This review is drawn largely from: Ontario Economic Council, Subject to Approval: A Review of Municipal Planning in Ontario (1973), which was prepared for the Council by a consortium of planning consultants. We are grateful to Dr. Gerald Carrothers for calling attention to this valuable report.

[2] The source for Ontario school enrolments is Table I above. For non-Ontario planning schools, see the 13th Annual Survey of Planning Schools of the American Society of Planning Officials.

## III. The Ontario Planning Schools

Our evaluation of graduate work in Planning in Ontario is viewed from two standpoints: (1) from the standpoint of the Province as a whole, i.e. viewing all the planning schools as part of a total provincial-wide system; and (2) from the standpoint of the individual planning schools.

### (a) Province-wide Questions and Issues

In evaluating graduate work in Planning, we shall be concerned first with certain questions which we believe are of particular concern to those who are responsible for planning and financing graduate work in Planning in this province as a whole (e.g., the Council of Ontario Universities, ACAP, the Provincial Government). Detailed issues of more concern to the individual schools will be dealt with in the next section.

The province-wide questions we shall consider here are these:

(1) What is the likely future demand for professionally-trained planners in Ontario, and are the planning schools as a whole, in their enrolment projections for the future, planning to meet their demand?

(2) Are the planning schools as a whole, in terms of their current and planned programmes of study (e.g. curriculum, coverage of fields of specialization, levels of planning education) and their faculty resources, likely to meet the general and special needs of future planning graduates?

(3) Is the size of the planning schools sufficient to meet the current and future needs, from the standpoint of the desired quantity and quality of both students and faculty?

### (a) (1) Future Supply of and Demand for Graduates of Ontario Planning Schools

In this section we are concerned with the future number of graduates from the five Ontario planning schools (the supply of planners), and the number of planning positions likely to be available (the demand for planners) in Canada as a whole, in the Province of Ontario in particular, during the period from 1972/73 through 1977/78. Our primary purpose is to determine to what extent we can expect a reasonable "balance" between future demand and supply of planners. If the expected supply, which is based on the plans and projections of the five schools themselves, will be greater than the expected demand, then recommendations could be made to adjust the planned enrolments of the schools downward; if the opposite supply-demand situation is expected, then enrolment adjustments upward may be in order (or perhaps even new programmes be encouraged).

As noted, in making our estimates of the future supply of planners, we rely on data on future enrolments supplied by each of the schools, for each year from 1973/74 through 1977/78. The basic data on future demand for planners in Canada and Ontario are derived from the comprehensive study of future demand and supply of planners in Canada and each of the provinces undertaken by Dr. Hodge in 1967 and up-dated in 1971. (Hodge, 1972.) Dr. Hodge's forecasts were for the year 1981, and since our forecast date is 1977/78, we have interpolated his data for that year.

Supply

As noted earlier (Section II, Table IIA), during the period 1968/69-1972/73, the five Ontario planning schools graduated a total of 194 graduates with master's degrees, or an average of around 39 per year.

Based on the five schools' own "plans" and projections, we estimate that during the period from 1973/74 through 1977/78, they will have a combined "output" of between 58-67 graduates per year, or an average of 63 annually, which represents an increase of 65% over the annual rate of output in the earlier period. This means that over the five-year projection period, a total supply of around 320 graduates from Ontario planning schools will be seeking employment. (See Table VIII.)

If past experience holds true, 82% of the future Ontario Planning graduates will seek immediate employment in Canada, while 18% will leave the country upon graduation to practice in other countries.[1] The latter comprise both foreign students returning to their home country and Canadians going abroad to practice. Also, if past experience continues, of the total future Ontario graduates seeking employment in Canada, 80% will specifically seek employment in Ontario. This means that an average of about 52 graduates per year from Ontario schools will seek employment in Canada upon graduation, and of this number, 42 will be looking for planning positions in Ontario alone each year. Thus, over the 5-year period, a total of around 260 graduates from Ontario planning schools will be in the planning market in Canada as a whole, and within Ontario, the number will be 208.[2]

Demand

As explained earlier, Dr. Hodge forecast the future demand for planners in Canada as a whole, and in the separate provinces, for the year 1981. For the purposes of our study, we are using 1977/78 as the forecast date for future demand, in order to keep this in line with the forecast date of the supply of planners from the Ontario planning schools. Thus, we have interpolated Hodge's data on actual number of planners in 1967 and 1971, and his forecast of demand by 1981, to arrive at (a) an estimate of the actual number of planners in Canada as a whole and in Ontario in 1972; and (b) a forecast of demand by 1977/78. This, then, gives us a 5-year forecast of demand (as well as supply).

These interpolated figures, as Table IX shows, indicate that during the 5-year period, 1972/73-1977/78, the number of new planning positions likely to become available in Canada as a whole will total 350 (or 70 per year), of which 115 (or 23 per year) will become available in Ontario. Allowing for an additional small number of replacements due to retirement and mortality (10 per year for Canada, and 4 per year for Ontario), the net number of additional persons "needed" in planning positions in the 5-year forecast period will amount to 400 in Canada and 135 in Ontario, based on Hodge's projections.

Demand versus Supply

Based on his forecasts of future demand and supply by 1981, Hodge concluded that the potential supply of planners from Canadian planning schools will far outstrip expected demand. He estimated that a surplus of 1,200-1,300 graduates could be the result if the Canadian planning schools operate at the capacity they now possess. (Hodge, 1972, pp. 58-59.) In presenting this conclusion, Hodge said that he was not contending that the planning education system should produce only enough graduates to meet projected demand. He rightly pointed out that demand projections can only be imprecise given our present knowledge and forecasting techniques; and, also, that manpower needs alone should not be allowed to direct any education programme--there is still much to be said for encouraging young people to continue their education! (Hodge, p. 64.) Despite these caveats, Hodge still concludes that the supply and demand situation emerging in the 1970's does not support the expansion of planning school places which has occurred in recent years, and calls upon the schools, the Canadian government, the planning agencies, and prospective students, to re-evaluate this situation in order to make a successful adjustment to the 1970's. (ibid., pp. 62-65.) While it was not his objective to assess the situation in any one planning school or any single province, Hodge undoubtedly would have reached the same conclusion about the Ontario planning schools, for the forecast date 1977/78, in view of his demand data.

As noted above, our data show that the Ontario planning schools are likely to graduate a total of 260 planners who will be seeking employment in Canada during the five-year period, 1972/1977, and Hodge's forecasts suggest that a total of 400 jobs will be "needed" during that period in Canada as a whole. The number of Ontario graduates seeking jobs in Canada would then represent 62% of the total number of posts likely to become available. Moreover, our analysis shows that of the total additional Ontario planning graduates, 210 will probably seek employment in Ontario alone, whereas the demand forecast based on Hodge's data indicates that only 135 new jobs are likely to become available in Ontario during this period.

The above figures for Ontario do not even take into account sources of supply other than Ontario planning schools; that is, graduates from planning schools in other Canadian provinces, people immigrating to Canada from other countries, persons with non-planning degrees, or persons entering the field with no university training.[3] All of these persons will also be seeking jobs in this period in Ontario and other provinces, and will be in competition with Ontario planning graduates.

It is clear that if we were to base our decisions on these estimates, we would be forced to conclude that there will be a surplus of planners in Ontario within the next five years. We do not, however, reach this conclusion. We do not reach it because we do not subscribe to the premises, assumption, and methodology which underlie Hodge's forecast of future demand. Our basic disagreement concerns Hodge's definition of the "professional planner", which was his forecasting "unit". In approaching his study, Hodge decided to use the designation employed by planning agencies in Canada. Thus, professional planners are defined as "all those persons holding professional planning positions in the planning operations where they are employed." (Hodge, p.3.) This designation, Hodge notes, corresponds in most cases with membership in either the Town Planning Institute of Canada or a provincial planning institute. Such a definition not only limits the actual number who would fall into the category of planners in 1967, his base-line year, but, more importantly in our view, it leads him to underrate future demand by not taking into account the current and expected broadening of the functions of professional planners.

Hodge's basic assumption is that the next decade (the 1970's) will see no profound changes in professional practice, that urban and regional planning will be practised within the frame of reference worked out in the 1960's. That is to say, planners will primarily work individually or in groups as advisors to official planning agencies, either as staff or consultants. In general, he assumes that the kind of demand that has prevailed in the past will continue to prevail in the future. For this reason, it was logical and reasonable for Hodge to argue that simple methods of calculating future demand would suffice: extrapolation of past growth trends in the profession or the use of ratios of planners to population would be sufficient to capture at least the range of possible future demand.

The basic assumption is one to which we do not subscribe. Because this issue is critical for evaluating enrolment plans, we will attempt to justify our view in some detail.

## New Planning Positions

We anticipate some significant changes in the demand for planners in the years ahead. We envision new job opportunities for persons trained in urban and regional planning, resulting from an increase in the array of "clients" for whom planners will work and from a broadening substantive concern of the planning profession. Specifically, we expect new opportunities for employment to emerge in: (1) environmental planning and environmental control activities at all levels of government; (2) the provision of technical advice to citizen-based organizations concerned with planning and environmental affairs ("advocacy planning"); (3) new forms of local government, particularly regional governments; (4) public agencies at all levels of government concerned with special functions or services; and (5) large-scale private building and development corporations.

## Environmental Planning and Environmental Control

As Canada continues to manifest a growing concern with environmental issues, and as governments at all levels respond to this concern by instituting new legislation and new programmes to control the environment, we anticipate the emergence of a great number of new positions to perform the necessary research, planning, and administrative tasks associated with these new activities. In particular, we anticipate a growth of such activities at the federal and provincial levels of government. For some years to come, and pending the wide-spread establishment of special educational programmes in environmental sciences and environmental studies we expect that persons trained in urban and regional planning will fill many of these positions. This will open up a new type of employer for planners--the Federal Government, which hitherto has not been a major source of employment for them.

Equally important, if recent U.S. experience is any indication of what is in store for Canada (and we believe it is), the growing federal, provincial and regional governmental efforts around environmental issues should also generate an enlargement of traditional local planning activities. For example, many States now require that a General (or Development) Plan for a local community should include environmental elements hitherto ignored, overlooked, or merely permitted, e.g., open space, conservation, noise, seismic safety, etc. Also, as a result of recent legislation and legal actions in the courts, many States now require that prospective public and private developers prepare extensive environmental-impact reports for submission to local governments (or newly established regional environmental commissions), detailing the likely impact on the environment of their proposed project. In most cities, the local planning department has been given the primary task of reviewing these reports, assessing the costs and benefits to the community of the proposed development, and recommending appropriate action to public officials.

Many U.S. cities, faced with these added local planning responsibilities, have found that they cannot meet them with existing staff and must hire additional planners for this purpose. We anticipate that Canadian municipalities in the coming years will find themselves in a similar situation.

## Citizen-based Neighbourhood Organizations

The 1960's in Ontario (and throughout Canada) were characterized by an upsurge of public interest in municipal planning and a burgeoning of citizen desire for participation and involvement in the planning process. (Ontario Economic Council, op. cit., Chapter 15.) But, few among the professional planners (or, indeed, among politicians or others) were prepared by training or inclination to respond positively to this new development. Everything points to a continuation of this major new fact of life for planning in the coming decade. We anticipate that both the Provincial Government and the municipalities will assign a high priority to broadening the popular base for planning.

A significant manifestation of this trend, from the standpoint of the planning profession, is the concept of the advocate planner. This concept which has become popular in the United States, is being tried now in Canada with some success, notably in Toronto's Trefann Court. Many people are urging that this trend be continued, especially at the neighbourhood level in the larger Ontario cities, that it be given encouragement and financial assistance by the Provincial Government.[4] (ibid.) The idea is that there should be fully trained and competent planning personnel made available to become the resource-professionals of the neighbourhood, although paid out of public funds. Advocate planners may be retained for specific projects or hired on a continuing basis if sufficient planning activity warrants. If this is to occur, a great number of new planning jobs will open up.

As noted by the authors of Subject to Approval, "within the planning profession the advocate planner is emerging clearly on the horizon as a legitimate and respected member of the fraternity." (ibid., p.41.) We believe that this development not only bodes well for the future of Ontario communities but also for future planning graduates who are inclined towards being activist professionals in the government planning machinery or in the private sector.

## New Forms of Local Government

Recently, Ontario and other provinces, have established larger area-wide, or "regional" governments, covering several municipalities and perhaps adjoining rural lands as well, which consititute a major shift in institutional arrangements for local government. This development should certainly affect the demand for planners. These new governments will not only add a new level of planning responsibility (the new governments being responsible for planning the larger areas as a whole) but they will also provide planning services to smaller municipalities within their areas, that are presently unable or unwilling to acquire their own planning staffs. These responsibilities are bound to generate an additional demand for planners.

## Specialized Public Agencies

Dr. Hodge's study covered professional planners in two types of planning agencies: (1) official planning agencies (there were about 200 in 1967), and (2) a residual category. The former type includes the agencies which have either official planning duties within some prescribed areal jurisdiction (municipal, regional, or provincial) or are advisors to these official agencies (private consultants). The residual category covers universities, the federal government, specialized public agencies, and private business. The official planning agencies in 1967 employed just over half of all professional planners and the municipalities accounted for over two-thirds of these. But, as Hodge himself notes, the evidence indicates that his residual category of employers is becoming increasingly large and diverse. (Hodge, pp. 15 and 17.) In particular, growth is expected in the specialized functional agencies such as highways, water resources, human resources and health departments; special local or regional transportation agencies, urban renewal agencies; and local or area school boards and health districts.

This conclusion is in accord with recent observations that in the future the planning function will spread throughout all levels of government and encompass a large variety of operating programmes, and not be confined to the traditional centralized planning agency or department. (Jones, 1972.) Indeed, because of this development, it is believed that there will be more growth in jobs in operating planning units of functional agencies than in the staffs of traditional planning departments. (ibid., pp. 187-188; also Perloff, 1972, p.5.) One estimate is that no more than 20% of future graduates will actually work in public, local planning agencies. (Mann, 1972, p.2.)

## Private Developers and Builders

Until fairly recently, almost all city planners were employed by public agencies (either planning agencies or functional planning units) or by consultants to such agencies. In recent years the private sector has become an increasingly important employer of city planners, especially the Housing and Building industry. With the increasing size and scale of many housing, commercial and other types of projects, large corporations have emerged to deal on a comprehensive basis with the planning, design construction and management of such projects. These corporations are involved in land acquisition and/or the actual development and planning of housing or other projects, both in new towns as well as in existing cities.

It is not surprising that under these circumstances, such companies have found a need to employ professional planners and designers (among other experts) on their own staff, to advise on the proper planning and development of their projects. We anticipate this trend continuing in the years ahead.

As implied above, Hodge himself recognized that several of these new factors will be operative in the future, but he did not anticipate that their impact would be great enough to alter earlier trends. We disagree with this conclusion, although we are unable to make a numerical estimate of the magnitude of the increased demand for planners which may be expected from these new sources.

As a matter of fact, there is some evidence (admittedly scanty) that these new job opportunities are already opening up and that many recent graduates of Ontario planning schools are filling positions other than the traditional ones. As noted earlier, Mr. Hugh Lemon, who is responsible for professional development in Waterloo's School of Urban and Regional Planning, reports that an increasing number of job advertisements (in local newspapers) and circulars of the TPIC are for positions in conservation authorities, resource development departments and environmental departments and agencies of provincial governments and the federal government; in new regional governments; and in large private development and/or construction companies. (See Section II above, "Summary Profile", footnote 10.)

Taking all these factors into consideration, we believe that most, if not all of the projected Ontario planning graduates over the next five years, will manage to find employment - most of them in non-traditional planning agencies. Thus we see no grounds for recommending a cut-back in the Ontario planning schools enrolments on the basis of manpower needs alone. Moreover, we do not have sufficient hard evidence which would justify any increase in enrolments beyond those planned for by the schools themselves.

## (a) (2) Nature of Planning Education

Even more important than the question of the numerical extent of future supply and demand is the question of the quality and type of planning training that future graduates of Ontario schools are likely to receive. Professor Jack Meltzer's words to the American Insitiute of Planners, some six years ago, are appropriate here:

> "The manpower challenge is clearly, therefore, not a problem in 'numbers matching' or statistical quantification, but is directly related to the character and role of planning, societal need, and the academic capacity to prepare the professional planner. The issue, in sum, is one of professional preparation, competence, and function. The issue is not the shortage of planners. (Meltzer, p. 248.)"

The key changes in the world of planning in Ontario, as we have seen them developing, are these:

(1) a growth of the planning function in government (at all levels), in a variety of private development companies, and in citizen-based organizations;

(2) the need for multi- and inter-disciplinary approaches to planning and new innovative techniques to deal with the complex problems planners now face (e.g. integration of physical planning with socio-economic and financial planning);

(3) the demand for specialists working in planning, with special knowledge, skills and competence in areas related to planning, e.g. systems analysis;

(4) the emergence of new "roles" for planners, e.g., advocacy planning, legal planning, environmental planning.

Are the Ontario planning schools meeting these emerging needs in the type and quality of the programmes they offer? We examine this question from two viewpoints: first, the various levels of planning education, being offered and, second, the types of planners being trained.

## Varying Academic Levels of Planning Education

Traditionally, planning education has been undertaken at the graduate level, especially the master's degree level; the master's degree has typically been considered the entry point into the planning profession. In recent years there has emerged undergraduate educational programmes in Planning, as well as a substantial increase in programmes at the doctoral level. In 1971, eleven universities in the U.S. and Canada offered bachelor's degree programmes in Planning, and nineteen offered doctoral degrees. (ASPO Annual Survey.) While our focus in this study is on graduate work at the master's degree level, it is appropriate at this point to make a few comments about the relationship between and among these various academic programmes from a province-wide standpoint.

It is important that the nature and purposes of the education and training programme at each academic level should be different, because the eventual job market for the different graduate differs.[5] Undergraduate programmes should be viewed as pre-professional training and, as such, should be designed to produce semi-professionals or professionals at lower or junior levels for many of Ontario's (and Canada's) planning agencies, positions for which the master's (or doctoral) degree is unnecessary; in particular to serve small and medium-sized cities which cannot afford the extra $2-3,000 which most master's degree graduates usually receive.

The master's degree programme should remain the customary and traditional mode of entry into the city planning profession.

Doctoral programmes should aim to produce high-level researchers and teachers in planning, although experience in the U.S.A. has indicated that many doctoral graduates in planning go into work with private firms and some public agencies.

We believe that there is need for all three levels to be represented in the Ontario province-wide system of planning schools. However, not all schools need have all three levels. We feel that the current number of schools offering undergraduate education and training, Ryerson and Waterloo, is sufficient, from the standpoint of future provincial needs. As discussed in the previous section, while there is a feeling among some persons that the capacity of the existing master's degree programmes is much greater than the expected demand for professional planners, we disagreed, in light of future new planning jobs. However, there is no basis for expanding the enrolment plans of the existing five planning schools or establishing new programmes at other Ontario universities at the master's degree level. With respect to doctoral programmes, we believe, as noted in a later section, that from a provincial standpoint one additional Ph.D. programme beyond the one now offered at Waterloo is warranted at this time, and, accordingly feel that the proposed doctoral programme at Toronto should proceed.

In addition to formal academic degree programmes, we feel a strong case can be made for mid-career and "refresher"-type special courses and seminars designed for working professionals who require updating in developments and new methods, in the planning field. Professional "retreading" would be especially useful for the current leaders in the planning profession, including the senior planning officials who, as discussed in an earlier section, were trained during an earlier period and are not familiar with many of the changes that have taken place.

The proposed Summer Institutes, planned by the new Director of Queen's School of Community and Regional Planning, represent a step in the right direction. It is intended that these Institutes will serve the region of Eastern Ontario and its communities, in addition to providing a service to the planning profession. We also commend the Toronto Planning School for its plans to introduce a part-time option within the M.Sc.(Pl.) programme and an associated series of offerings for the continuing education of practising professionals. Members of the TPIC and the Toronto Alumni Association were recently appointed to the Department's Advisory Committee in order to explore the implementation of this proposal further.

## Types of Planners being Trained

Traditionally, planning schools everywhere have trained the generalist or comprehensive planner who typically worked for an official planning agency or private consultant working for the agency. But, recently, changes in professional planning practice have led to the demand for planners trained as specialists and/or to perform new roles and functions. A survey of planning schools in the U.S. found that the schools are training, in addition to the generalist planner, the following types of planners (Nutt and Suskind, 1970; Dembrow and Nutt, 1973): (1) the generalist with a speciality (e.g. specific competence in a spatial or functional area, such as regional development, transportation, housing, health); (2) the technical planner trained in a specific field, (e.g. urban economics, sociology, computer application, systems or quantitative methods); and (3) the planner trained for a special role (e.g. advocate planner, urban lawyer, programme administrator, ecologist, change-agent).

Generally, the approach taken to train these various types of planners is to combine a basic core curriculum with an opportunity to specialize within professional education. The core curriculum is, in general, designed to provide students with the basic knowledge and skills required in theory and methods of planning and with a common orientation to the planning profession. The number and type of specializations offered to the students vary, of course, but generally they emphasize one of the basic planning functions or operations that apply to a broad range of agency types, geographic scales or planning problems, e.g. research and analysis, design, or implementation and coordination; or have an areal focus, e.g. project planning, city planning, metropolitan planning, or regional planning; or have a functional or problem-area focus, e.g. transportation, housing, health; or emphasize one of the "new" planning specialities or roles, e.g. systems analysis, ecology, advocacy planning.

Ontario (and the rest of Canada) has been experiencing the same trends. Until recently, despite the waning of demand for traditional planning generalists, the Ontario planning schools have been training this type of planner; at the same time, many of the newly evolving specialist jobs in planning offices at the local and regional levels and in functional agencies and departments (e.g. jobs requiring systems analysts, regional economists, or sociologists) have been filled by graduates from other academic training programmes. (Ontario Economic Council, op. cit., p. 41.) Today, however, the schools, following the trend elsewhere, are attempting to fulfill the need for varying professional roles and functions. And, as is the practice elsewhere, they are attempting to do this by combining a core curriculum with fields of specialization.

However, there is considerable variation among the schools in the scope and content of the core curriculum, the extent to which students are required to take core courses, and the number and type of fields of concentration offered. Toronto, under its new curriculum format, has no required courses at all. Likewise, York students (including those taking planning as their area of concentration) have no required courses to take. Waterloo requires all students to take a 2-term course in the philosophy and methods of regional planning and resource development. At Queen's, under its existing curriculum, approximately 50% of a student's course load consists of required courses.

As expected, the fields of specialization offered by the different schools reflect their own perception of the needs of the profession, tempered by the background and interests of the faculty and its ability to offer different specialities. Under its new curriculum, Toronto offers four fields of concentration from which the students must select one he will focus on, namely, (1) ecology and environmental planning; (2) planning of urban and regional systems; (3) planning theory and policy analysis; and (4) neighbourhood planning and urban design. Waterloo requires students to take a minimum of two full or four half-courses covering one or more of the following broad areas of specialization: (1) quantitative and analytical techniques; (2) the planning process in a regional context; (3) politics, administration and policy-formulation; (4) ecology and resources management; and (5) social aspects of planning. In addition, all Waterloo students (at the master's level) must prepare a thesis, covering one of the following four main areas of specialization: (1) regional planning methodology; (2) resources planning: (3) outdoor recreation planning; and (4) social and political aspects of planning. These theses emphases strongly reflect the faculty strengths at Waterloo and the course themes listed above.

Waterloo claims very explicitly that at the master's level it is producing "specialist planners." The purpose of the training, it is claimed, is to give their students (who have had some "specialist" training at the undergraduate level, e.g. in economics, sociology, etc., as well as some work experience) "additional exposure to their speciality, within a planning context."

The York approach, reflecting its innovative concept of education in general, requires the student to develop a Plan of Study early in the first semester (this can subsequently be revised) in consultation with his/her faculty advisor. The student must select a substantive area of concentration as the basis for the Study Plan, with courses, work experience etc. centred around this area of concentration. There are no apparent restrictions as to the area of concentration that may be selected, except for the availability of a faculty member with the interests and willingness to supervise the work, and the availability of courses in the area of concentration. Since York has a large faculty, with diverse interests and backgrounds, and offers a large number of courses, it is not surprising that there is a large number and diversity of areas of concentration currently being studied by York students, a greater number and variety than in any of the other Ontario schools. The areas of concentration (in Planning) range from urban planning, regional planning, and land use planning to recreation planning, environmental planning, policy planning, and health planning--to mention but some examples.

Under the existing Queen's curriculum, there is no requirement that the optional courses (around 50% of the total) comprise an area of concentration. However, the new Director has indicated that in the future the School will concentrate its programmes in the area of regional planning and development. The reasons for this new focus, according to the new Director, stem first and foremost from Dr. Hodge's own background and interests; but it is also felt that it relates to the vital national and provincial policy issue of regional development, to the fact that Queen's has strength in disciplines complementary to planning, and long-standing links to federal government activities, and, finally, to the fact that Eastern Ontario offers an excellent laboratory for research and for illustrating the problems of regional development.

As noted earlier, the very nomenclature of the Ottawa degree, namely, a Master of Arts in Geography with specialization in Regional Planning, points up clearly the direction it takes in terms of fields of concentration.

Based on this brief review of the approach of Ontario schools to the training of planners, we offer the following observations and recommendations, especially with respect to the core curriculum and fields of specialization offered from a province-wide standpoint.

(1) With the emergence of specialists in planning and of planners performing new "roles", there is a strong inclination today on the part of planning schools to try to "cover the waterfront" in their fields of specialization. This contains the seeds of potential danger, from two standpoints: First, there is an inclination to proliferate the programmes of study and to minimize or water down the planning

component, especially the required core courses in planning, while emphasizing work in the specializations. Irrespective of the number and type of planning specializations offered we believe that a sound planning curriculum should be based on the premise that training aimed at developing diversity in planning roles and/or functions should be based upon a core of planning knowledge and skills that are common to all planners. This will allow for the fundamental cohesiveness of the profession (including a common language and terminology), an understanding of the broader context within which various planning specializations operate, and a measure of flexibility with respect to career development, for all students irrespective of the particular speciality they wish to pursue. Accordingly, we believe that all planning schools should specify a common core of knowledge and skills, covering basic planning theory, techniques and methods, to be required of all students, irrespective of their field of specialization. The specific curriculum arrangements for ensuring that students obtain this common core may vary from school to school (e.g. through a required set of courses, internships or preceptorships, directed studies, etc.). Moreover, we recognize that the specific content of the common core may be subject to variation between the schools. We are concerned, as discussed in the section on individual schools, that Toronto (under its revised curriculum) and Waterloo do not subscribe to this view explicitly enough.

Second, in order for a school to provide students with adequate training in a field, there should be at least a minimum critical mass of planning school faculty trained, and currently carrying out research, in that field, and of students interested in taking the particular field. Otherwise, resources are dissipated and there is no concentration of faculty or students to provide the kind of interaction required to make the field a viable one for study. With most of the Ontario planning schools comparatively small and not likely to get much larger (see a later section), we suspect that they are unable to provide the necessary critical mass of support in all of the fields they offer.

We would note three approaches or solutions to this problem; each of which has much to be said for it. The first is for the schools to select one or two fields in which to offer fields of specialization, and concentrate their resources therein. Course offerings, faculty recruitment and other relevant matters could all be geared to these selected fields. This is the approach that the new Director at Queen's is apparently proposing to take, and we commend him for this. Under such an approach, it would be desirable if the schools did not duplicate one another and would, in total, span a broad range of specializations. Students interested in studying planning in Ontario would then select their schools based on the field(s) of concentration offered.

A second approach, and one quite different from the previous, would be based on the premise that it is impossible for a single school, or even all schools in total, to adequately offer the full or even almost-full range of required specializations, and, also, impossible to anticipate the kinds of specialities that will emerge in the future, given the rapidly changing character of the planning field. Instead, they would provide all students with basic planning training in theory, methods, and techniques so that planners can go from one of the new roles to another; that is, to provide training in broad, generic planning to produce effective planners for a wide range of situations. (This is the approach currently being taken in the Department of Policy Planning and Regional Analysis at Cornell University. See Jones, 1972, p. 188.)

A third approach is based on the premise that because of limited resources and the fact that the training period in most planning educational programmes is no more than two years, planning schools cannot do justice to both basic planning training and training for one of the new planning specialities or roles; and that the specializations can best be handled by the appropriate related discipline, in conjunction with the planning school. Thus, for students who desire to focus on one of these new planning specialities or roles, joint degree programmes with the other relevant university departments or schools, should be developed. For example, a student wishing to become a "social planner" would take a joint degree between planning and social welfare (or social work), which would comprise three types of courses: (1) required core courses in planning; (2) a few specialist courses in social planning offered by the planning schools; and (3) courses offered by the social welfare (or social work) department in, for example, health and welfare policy, community organization, etc. Where this approach is being undertaken (for example, the University of Southern California and the University of Pennsylvania, to name but two), the time required for a joint degree (or double-degree) is usually one year less than the time required to take both degrees separately, because each programme "counts" some credits from the other programme towards its degree.

(2) There are "fads" in planning, as in all fields and disciplines, often reflecting current popular concerns. At the present time two of the more popular concerns, related to planning, are: ecology and environmental planning, and regional planning and development. We are concerned that of the five planning schools, three--York, Waterloo and Toronto--offer "ecology and environmental planning" as primary fields of concentration (in the case of York, the whole Faculty, as a matter of fact, focuses on this general field, not just the planning component); and Toronto (in its new curriculum), Waterloo, Ottawa and Queen's (under the proposed plan of the new Director) stress regional planning and resource development.

Without in any way underestimating the importance of these two fields to the Province and, indeed, to society as a whole, we wonder whether the heavy emphasis on these two fields does not represent an "imbalance" in focus, from the standpoint of provincial-wide planning needs. This emphasis appears to be at the cost of any serious attention to city or urban planning, in terms of the system of planning schools as a whole except, to a limited extent, at Toronto and York. Considering that Ontario is expected to become even more urbanized in the years ahead, we wonder where the planners will come from to deal with the attendant urban problems.

(a) (3) Economic Size of Schools

The number 40 has traditionally been accepted as the desirable minimum total enrolment size for planning education at the master's level. With a desired minimum sized faculty of 7 or 8 persons, this produces a student to faculty ratio of 5 or 6 to 1. (The current average ratio in U.S. planning schools is about 6 or 7 to 1. See Meltzer, footnote 2, p. 272.) The number 40 is based on a 2-year programme (and annual intake of 20) and the use of studios or laboratory/workshops as a principal method of instruction. These studios, from experience, are best handled in units of 20 students each.

Many U.S. planning schools have in recent years deliberately increased in size beyond the number 40, largely to be able to provide a sufficient number of faculty to cover the number of diverse specialities now required, in the proper training of urban or regional planners. Indeed, one observer predicts the era of 6 to 1 student to faculty ratios in master's level planning education is probably over and that we are headed for a typical standard of about 10 to 1. (Mann, September 1972, p. 194.) Moreover, the same observer says, planning schools, to achieve broad excellence, will require a "critical mass" faculty of over 20 full-time equivalents, which means that there will be enrolments exceeding 200 students. (Mann, ibid., and Mann, Autumn 1972, p. 4.)

As noted earlier (Section IIA), total student enrolment, as well as annual intake varies among the five Ontario planning schools. In 1972/73, for example, Toronto and York had the largest total enrolments (68 and 77 respectively) and newly entering class (30 and 38). Waterloo (master's degree programme) and Queen's rank next, with total enrolments of around 42 and an annual intake of 20. Ottawa has the smallest student body, 17, and in 1972/73 it took in only 10 new students.

Thus, except for Ottawa, the Ontario planning schools have, indeed, achieved the traditional minimum size referred to earlier. Likewise, in terms of their future enrolment plans, all schools, again except for Ottawa (until 1977/78), will achieve the traditional minimum desired size. (See Table I.)

However, none of the schools, except for York (if we consider total enrolment), plan to reach the much larger enrolment sizes anticipated by some observers.

The issue of the size of planning schools is an important one because of its implications for the cost of planning education. There is no question that graduate planning education is costly. This not only reflects the fact that graduate education in general is costly but is due to several special factors peculiar to graduate planning education. These are: (1) as a rule, there is no undergraduate planning programme which can "absorb" some of the costs of graduate degree programmes; (2) because of the changing roles and functions of the planning profession, there is a need for a greater number of planning specialists on planning school faculties, none of whom necessarily justifies a full teaching load; and (3) Ontario schools are small in size.

The high cost of planning education is a fact of life that must be recognized. Those schools which offer undergraduate planning programmes as well, such as Waterloo, are obviously in better condition financially; while we have no data on this, we assume its costs per capita are lower than the other schools. One obvious way for the other schools to deal with this problem is to introduce an undergraduate programme. We do not recommend this. Short of this, the following are some additional ways a school can deal with the high cost of graduate planning education:

(1) it can introduce planning courses at the undergraduate level;
(2) it can seek research and training grants to support the planning faculty-specialists;
(3) it can introduce mid-career, refresher, and "extension-type" courses, both throughout the school year (in the evenings) and in the summers (as Queen's is proposing to do); these tend to be "money-makers" and can help defray costs of regular degree programmes; they also serve an important need;
(4) it can refuse to attempt to cover many of the possible fields of specialization, and rather concentrate, as Queen's proposed to do, in one or two areas; this minimizes the number of faculty specialists required.

## FOOTNOTES

[1] See Table VIA. Note that Hodge used the proportions 85% and 15% respectively.

[2] Hodge assumes that the number of Master's degree graduates of Ontario planning schools will amount to 84 per year, or, for the 5-year period, a total of 420, of which he assumes, 85%, or 357 will seek employment in Canada.

[3] In 1967, according to Hodge, these groups represent the following proportions of all Canadian planners: persons who had immigrated to Canada from abroad, 29%; persons with non-planning degrees, 29%;

and persons who entered the field with no university training, 7%. He assumed that these proportions would decline in the 1970's, with a corresponding increase in Canadian-trained planners.

4 Typically, the advocate planner is hired by a local citizens or neighbourhood organization and paid from funds raised by the group itself, or, more often, the planner volunteers his service gratis.

5 As discussed in a later section, we are concerned that the University of Waterloo doesn't adequately differentiate its three degree programmes in Planning.

TABLE I

Planning Student Populations (Master's Degree), 1968/69-1972/73, and School Projections for 1973/74-1977/78

| | ACTUAL | | | | | PROJECTIONS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SCHOOL | 1968/69 | 1969/70 | 1970/71 | 1971/72 | 1972/73 | 1973/74 | 1974/75 | 1975/76 | 1976/77 | 1977/78 |
| Toronto | | | | | | | | | | |
| F.T. | 38 | 38 | 44 | 47 | 64 | n.a. | n.a. | n.a. | n.a. | n.a. |
| P.T. | | | | 3 | 4 | n.a. | n.a. | n.a. | n.a. | n.a. |
| Total | 38 | 38 | 44 | 50 | 68 | 50-60 | 50-60 | 50-60 | 50-60 | 50-60 |
| Ann. Intake | 20 | 20 | 25 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 |
| York | | | | | | | | | | |
| F.T. | -- | 16 | 69 | 146 | 189 | n.a. | n.a. | n.a. | n.a. | n.a. |
| P.T. | -- | -- | 12 | 9 | 14 | n.a. | n.a. | n.a. | n.a. | n.a. |
| *Total | -- | 16(6) | 81(31) | 155(59) | 203(77) | 225(85) | 225(85) | 225(85) | 225(85) | 225(85) |
| *Ann. Intake | -- | 16(6) | 70(29) | 100(38) | 100(38) | 100(38) | 100(38) | 100(38) | 100(38) | 100(38) |
| Waterloo | | | | | | | | | | |
| F.T. | 23 | 30 | 26 | 31 | 33 | 37 | 37 | 38 | 38 | 38 |
| P.T. | 3 | 8 | 16 | 16 | 20 | 12 | 12 | 12 | 12 | 12 |
| Total | 24 FTE | 33 FTE | 31 FTE | 36 FTE | 39 FTE | 41 FTE | 41 FTE | 42 FTE | 42 FTE | 42 FTE |
| Ann. Intake | 15 | 15-20 | 15-20 | 15-20 | 20 | 20 | 25 | 25 | 25 | 25 |
| Queen's | | | | | | | | | | |
| F.T. | -- | -- | 19 | 37 | 33 | 35 | 37 | 42 | 46 | 46 |
| P.T. | -- | -- | n.a. | n.a. | 10 | 8 | 7 | 8 | 8 | 10 |
| Total | -- | -- | 19 | 37 | 43 | 43 | 44 | 50 | 54 | 56 |
| Ann. Intake | -- | -- | 10 | 15-20 | 20 | 20 | 20 | 25 | 25 | 25 |
| Ottawa | | | | | | | | | | |
| F.T. | -- | 7 | 13 | 14 | 16 | 17 | 25 | 30 | 35 | 40 |
| P.T. | -- | -- | 1 | 1 | 1 | n.a. | n.a. | n.a. | n.a. | n.a. |
| Total | -- | 7 | 14 | 15 | 17 | 17 | 25 | 30 | 35 | 40 |
| Ann. Intake | -- | 7 | 7 | 10 | 12 | 10 | 15 | 15 | 20 | 20 |
| Total, All Stud. | 62 | 84 | 139 | 197 | 244 | 236-246 | 245-255 | 257-267 | 265-275 | 272-282 |
| Total, Ann. Intake | 35 | 48-53 | 84-104 | 103-118 | 115-120 | 113-118 | 123-128 | 128-133 | 133-138 | 133-138 |

F.T. - full-time; P.T. - part-time; Total - not full-time-equivalents, unless indicated otherwise; Ann. Intake - new enrollees

*See footnote 2 in Section I, Summary "Profile"; figures in parentheses indicate our estimate of "planning" component of York enrolments.

## TABLE II

## Student and Faculty Populations of Ontario Planning Schools (Master's Degree), 1972/73

| SCHOOL | 1972/73 |
|---|---|
| Toronto | |
| Faculty | 9 |
| Students | 68 |
| F/S Ratio | 1:7 |
| York | |
| Faculty* | 10 |
| Students* | 77 |
| F/S Ratio | 1:7.7 |
| Waterloo | |
| Faculty*** | 12 |
| Students | 39 |
| F/S Ratio | 1:3 |
| Queen's | |
| Faculty | 3.7 |
| Students** | 38 |
| F/S Ratio | 1:10 |
| Ottawa | |
| Faculty | 6 |
| Students | 17 |
| F/S Ratio | 1:3 |

Note: The figures for faculty and students are estimated full-time equivalents. The formula used for students is: 1 FT student = 1 FTE student; 1 PT student = 0.3 FTE student. (See Table I.) For faculty, the figure for 1972/73 is based on the actual faculty list for that year, including the % time spent by each faculty member, which was part of the information submitted to ACAP (Form 1).

* See footnote 3 at end of Summary "Profile".

** Includes qualifying students, who are admitted to the first year of the M.Pl.course and receive appropriate credit; they are not treated differently from full master's students.

*** Includes faculty in doctoral as well as master's programme.

## TABLE IIA

### Planning Master's Degrees Awarded, 1968/69-1972/73

| SCHOOL | 1968/69 | 1969/70 | 1970/71 | 1971/72 | 1972/73 |
|---|---|---|---|---|---|
| Toronto | 17 | 15 | 20 | 21 | 17 |
| York | -- | -- | -- | 15 | 19 |
| Waterloo | 5 | 7 | 8 | 9 | 8 |
| Queen's | -- | -- | -- | 6 | 10 |
| Ottawa | -- | -- | 7 | 5 | 5 |
| Total | 22 | 22 | 35 | 56 | 59 |

## TABLE III

### Country Where Planning Students Obtained Their Undergraduate Degree, 1968/69-1972/73

| SCHOOL | 1968/69 | | | 1969/70 | | | 1970/71 | | | 1971/72 | | | 1972/73 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C | O | T | C | O | T | C | O | T | C | O | T | C | O | T |
| Toronto | 27 | 11 | 38 | 29 | 9 | 38 | 30 | 14 | 44 | 37 | 13 | 50 | 58 | 10 | 68 |
| York* | -- | -- | -- | 5 | 1 | 6 | 26 | 5 | 31 | 47 | 12 | 59 | 61 | 16 | 77 |
| Waterloo | 23 | 9 | 32 | 40 | 10 | 50 | 43 | 13 | 56 | 48 | 12 | 60 | 52 | 13 | 65 |
| Queen's | -- | -- | -- | -- | -- | -- | 18 | 1 | 19 | 35 | 2 | 37 | 35 | 8 | 43 |
| Ottawa | -- | -- | -- | 6 | 1 | 7 | 12 | 2 | 14 | 12 | 3 | 15 | 14 | 3 | 17 |
| Total No. | 50 | 20 | 70 | 80 | 21 | 101 | 129 | 35 | 164 | 179 | 42 | 221 | 210 | 50 | 270 |
| Total % | 70 | 30 | 100 | 80 | 20 | 100 | 78 | 22 | 100 | 80 | 20 | 100 | 81 | 19 | 100 |

C - Canada
O - Other
T - Total

*See footnote 2 in Section I, Summary "Profile".

## TABLE IV

## Undergraduate Discipline of Planning Students, 1968/69-1972/73

(Percentage Distribution)

| Undergraduate Discipline | 1968/69 % | 1969/70 % | 1970/71 % | 1971/72 % | 1972/73 % | 1968/69-1972/73 % |
|---|---|---|---|---|---|---|
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| Engineering & Architecture | 25 | 20 | 11 | 11 | 10 | 14 |
| Social Sciences & Humanities* | 71 | 70 | 74 | 79 | 75 | 74 |
| Other** | 4 | 10 | 15 | 10 | 15 | 12 |

*Includes, e.g., economics, sociology, social work, anthropology, psychology, philosophy and history.

**Includes, e.g., physical and biological sciences, business, undergraduate degree in planning.

## TABLE V

## Planning Students[*] With Some Form of Financial Assistance[**]

| SCHOOL | 1968/69 | | 1969/70 | | 1970/71 | | 1971/72 | | 1972/73 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | All | W/A | All | W/A | All | W/A | All | W/A | All | W/A |
| Toronto | 38 | 10 | 38 | 29 | 44 | 30 | 47 | 32 | 64 | 39 |
| York[***] | -- | -- | 6 | 0 | 31 | 20 | 59 | 43 | 77 | 48 |
| Waterloo[****] | 23 | 22 | 35 | 35 | 32 | 32 | 37 | 34 | 34 | 34 |
| Queen's | -- | -- | -- | -- | 19 | 5 | 37 | 11 | 33 | 19 |
| Ottawa | -- | -- | 7 | 7 | 13 | 8 | 14 | 9 | 16 | 11 |
| Total No. | 61 | 32 | 86 | 71 | 139 | 95 | 194 | 129 | 224 | 151 |
| Total % | 100% | 52% | 100% | 83% | 100% | 68% | 100% | 66% | 100% | 69% |

All - All Students

W/A - With Assistance

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[*] Full-time students.

[**] Includes national and provincial fellowships and scholarships, foreign fellowships and foreign government support, teaching and research assistantships.

[***] "Planning" students with assistance estimated by applying the proportion 38% to the total number of students in the Faculty receiving some form of assistance.

[****] Includes Ph.D. students.

## TABLE VI

### Geographic Location of Immediate Employment* of Planning Graduates, 1968/69-1972/73

| TOTAL GRADUATES | 1968/69 | | 1969/70 | | 1970/71 | | 1971/72 | | 1972/73 | | 1968/69-1972/73 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ont. | Rest | Ont. | Rest | Ont. | Rest | Ont. | Rest | Ont. | Rest | Ont. | Rest |
| Number | 15 | 7 | 17 | 8 | 19 | 15 | 34 | 18 | 40 | 18 | 125 | 60 |
| % | 68 | 32 | 68 | 32 | 56 | 44 | 65 | 35 | 68 | 32 | 65 | 35 |

Ont. - Ontario

Rest - "Rest of World"

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*First employment of graduates within six months of being granted degree, for those graduates whose immediate employment was known.

## TABLE VII

## Immediate Employment of Planning Graduates, by Type of Employment, 1968/69-1972/73

(Percentage Distribution)

| TYPE OF EMPLOYMENT | 1968/69 | 1969/70 | 1970/71 | 1971/72 | 1972/73 | 1968/69-1972/73 |
|---|---|---|---|---|---|---|
| | % | % | % | % | % | % |
| University | 12 | 29 | 3.5 | 17 | 7 | 13 |
| Industry | 12 | 9.5 | 18 | 7 | 0 | 8 |
| Government | 71 | 57 | 75 | 63 | 70 | 67 |
| Other | 4 | 4.5 | 3.5 | 12 | 23 | 12 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

## TABLE VIII

### Projections of Future Number of Graduates (Master's Degree),[*] Ontario Planning Schools, 1973/74-1977/78

| SCHOOL | 1973/74 | 1974/75 | 1975/76 | 1976/77 | 1977/78 | Total |
|---|---|---|---|---|---|---|
| Toronto | 14 | 14 | 14 | 14 | 14 | 70 |
| York | 19 | 19 | 19 | 19 | 19 | 95 |
| Waterloo | 10 | 12 | 12 | 12 | 12 | 58 |
| Queen's | 10 | 10 | 12 | 12 | 12 | 56 |
| Ottawa | 5 | 7 | 7 | 10 | 10 | 39 |
| Total | 58 | 62 | 64 | 67 | 67 | 318 |

[*] Based on the data on annual intake of new students, the total number of registered students, and the number of degrees awarded, annually, for the period 1968/69-1972/73. We calculate that approximately 50% of the annual intake, or 25% of the total registered students, emerged with master's degrees during this period. (Compare Tables I and IIA above.) We have used these proportions in projecting the future number of graduates with master's degrees, based on data provided by each school on projected annual intake and total number of registered students by year. (See Table I above.) It should be noted that several of the schools submitted data on their annual projected number of graduates; these were all higher than our figures. It should also be noted that in his projections for Canada as a whole, Dr. Hodge assumed that 80% of those students entering planning schools graduate with a master's degree or diploma.

## TABLE IX

### Number of Professional Planners, 1967, 1971, 1972, 1977 and 1981, Canada and Province of Ontario

| YEAR | No. of Prof. Pl. | | Ontario as % of Total | Net Additions | | Rate of Growth | |
|---|---|---|---|---|---|---|---|
| | Canada | Ontario | | Canada | Ontario | Canada | Ontario |
| 1967 | 639* | 310* | 49% | | | | |
| 1971/72 | 1,017* | 385 | 38% | | | | |
| 1972/73 | 1,087 | 408 | 37% | | | | |
| 1977/78 | 1,437 | 523 | 36% | 350 over'72 | 115 over'72 | | |
| 1981 | 1,645* | 620* | 38% | 628 over'71* | 235 over'71 | 61% over'71* or 70 per year* | 61% over'71* or 23 per year |

Sources: Figures with an (*) taken directly from Hodge (1972); other figures are estimated or interpolated from Hodge data. Hodge's 1981 forecast is his "most reasonable" estimate (he made 4 forecasts for 1981) and is based on an assumed increase in the ratio of planners to population. He assumed a ratio of 0.80 planners to 10,000 urban population during the 1970's; his urban population forecast was taken from the 1967 forecast undertaken by the Economic Council of Canada.

## (b) Individual Schools

### OTTAWA

### Administrative Structure

Ottawa offers a Master of Arts degree in Geography (Regional Planning). As implied by the nomenclature of the degree, Regional Planning at Ottawa is offered within the Department of Geography and Regional Planning. Since 1968, and until recently, the programme of studies was offered through the Centre for Regional Studies, an arm of the Geography Department. The absence of a separate planning degree would seem to contradict one of our criteria for examining planning schools. In this respect, the Ottawa situation appears to be similar to Western Ontario's. The differences, however, which led us to include Ottawa (but exclude Western Ontario's planning activity) are:
(1) a degree is awarded in "regional planning", although the basic degree, as it were, is in Geography;
(2) there has been a semblance of a separate programme, e.g. there is a "secretary" and "director";
(3) there has been long-standing (though sometimes contradictory) evidence that the university is moving towards a separate, independent degree programme.

When the Centre was first established, the University planned the development of an independent teaching and research unit, which would develop an extensive programme in Regional Planning independent of the Geography Department and its programmes. However, in March 1970 an Appraisals Committee, established to appraise a proposal for a master's programme leading to a separtate degree in Regional Planning, recommended that the University continue to develop the programme within the context of the Department of Geography "until there exists a larger minimum group of faculty members devoted exclusively to the new programme". There was still hope that development of the programme would be strong enough to resubmit the proposal for appraisal by the end of 1973. However, the departure of the faculty members responsible for this specialization forced the University to change its plans and in February 1973 the Centre for Regional Studies was formally terminated by a decision of the Senate. As of this moment, according to the Dean of Graduate Studies, the University no longer plans to establish a separate master's programme in Regional Planning before the end of the 1975/76 academic year.

It should be noted that the first two groups of graduates were awarded an M.Pl. degree, because of the commitments made by the previous Director (commitments he was clearly not entitled to make). The decision to fulfill these commitments was a special ad hoc Senate decision, and was not meant to be interpreted (at that time at least) as representing future university pol[illegible].

### Faculty Quality and Size

Until recently, the faculty were short in academic credentials in teaching and research. The Oberlander/Alonzo appraisal report was most pointed on this question, recommended that there was a need for new faculty, that such faculty should be of high academic quality, and that they should have had some prior academic or professional experience. Indeed, as already noted, they felt that unless and until this was done, the university should continue the programme within Geography.

The recent appointments to the faculty, plus the new ones effective 1973/74 (2 new FTE staff members), are indeed, more impressive in this regard, and clearly reflect an attempt to rectify the early faculty short-comings.

However, there is still a serious problem associated even with these new appointments, stemming from the basic administrative issue discussed above; that is, none of these new faculty members have been trained specifically in urban and/or regional planning. This, of course, reflects the basic fact that Planning is still combined with Geography, so that it is natural that the Department will want to appoint geographers who, at the same time, might have some interest in Regional Planning. (The geographers might also believe that all regional planners should be geographers!) A related problem is that none of the new appointments will devote full-time to planning; each is allotted some percentage of their time to Geography, usually a large one.

We feel this indecision on the part of the University is a pity. In view of the importance of bilingualism in Canada today, it is important that there be a high quality, dynamic planning programme at Ottawa because of the bilingual character of the existing programme and its geographic location. This in itself should continue to attract students of a high quality. Also, the programme has support of the administration and related departments, and appears to have the requisite space, library facilities, etc. But, this objective will not be realized unless and until the existing programme becomes a separate, independent unit with its own named degree, e.g. the M.Pl.

Morale is being adversely affected by university indecision regarding the future status of the programme. It is our impression that the geographers are as unhappy about this indecision (the problem has been a continuing "noose" around them) as are those faculty members directly concerned with the Regional Planning programme, since the problem has been a "noose" around them.

Unless and until the university decides to establish a separate, independent unit and provides the necessary financial and other support commensurate with establishment of such a unit, we consider that no additional faculty should be appointed and that the current plans to increase total enrolment to 40 students by 1977/78 should be put aside.

## QUEEN'S

### Administrative Structure

The School of Urban and Regional Planning awards a Master of Planning degree, and is an independent unit within the School of Graduate Studies and Research and is not attached to any other Faculty or Department. Until recently it was governed by a Policy Committee comprised of representatives from related disciplines as well as the School's teaching staff. This has now been replaced by a permanent Faculty Board, chaired by the Dean of Graduate Studies, who is also the Budgetary Officer. These changes will give the Director a clearer base from which to approach other departments within the University.

Under the existing curriculum each student must take a group of seven core courses and present a master's thesis or report in Planning; the remaining, approximately, 50% of a student's programme is comprised of elective subjects. Students are encouraged to take courses in other departments and most do this extensively.

The new Director plans that the School should concentrate its programmes in the area of regional planning and development over the next five years. Several factors have motivated this decision. This aspect of planning relates to the vital national and provincial policy issue of regional development. Moreover, Queen's has substantial strength in disciplines complementary to planning as well as long standing links to federal government activities. The situation of Queen's within Eastern Ontario offers an excellent laboratory for illustrating the problems of regional development. In addition, the new Director proposes to establish external programmes of service to the profession, including mid-career training. Such programmes it is hoped, will also be particularly valuable to the people and institutions of this region.

In addition to its new curricular focus on regional planning and development, the new Director has obtained approval for several other academic changes. To begin with, he envisages only a modest expansion in the basic M.Pl. academic programme. Rather the School will enlarge its activities through new programmes of regional research, service to the planning profession, and planning assistance to its region, Eastern Ontario.

### Faculty Quality and Size

The most serious concern we have about the Queen's programme is the size of its faculty. By any reasonable standards, the School requires at least 6 FTE faculty to take care adequately of its projected enrolments. One possible way out of this problem (assuming additional funds for faculty hiring will not be forthcoming) is to make better use of the resources to be made available at the Summer Institutes which the new Director plans to establish regularly. For example, the School might consider using the invited professionals and academics not only for the special service-type lectures, but also for academic purposes; the regular degree students, who can now attend the lectures might receive credit for them, and, also, the visitors might be asked to supervise the research of the Planning students while in residence during the summer months.

In terms of quality, there is good reason to have optimism for the future. The new Director comes with good credentials (in terms of experience, research, publications, and teaching) and with clear, far-reaching, and in some instances innovative plans for the School. This, in itself, augurs well for the future of the School. In addition, two of the staff whom we met impressed us, one of whom has a joint appointment with Law. The Director's next few appointments are critical, in terms of setting the future tone and quality of the School. Fortunately there are only two tenured faculty including the Director, and Dr. Hodge was able to obtain a postponement of two tenure decisions.

## Students

The non-planning faculty representatives with whom we met said that Planning students are not as good as their students or graduate students at Queen's in general; that their impression is that there are too many B-Planning students. Data provided us by the Acting Director of the School, covering the period 1970/71-1972/73, on the grade point average of Planning entrants (the applicants' records at the universities from which they graduated converted into the Queen's grading system), seemed to confirm this impression. However, at our meeting with some of the students from the School, we were impressed with their alertness and seriousness, and we understand current applicants are of high quality.

## Related Departments

In our meetings with the administrative officers of the University and the representatives of other departments, we were told in no uncertain terms that interdepartmental cooperation was a long-standing tradition at Queen's, and that no barriers exist to cooperation with Planning. At the same time, the departmental representatives made it clear that they thought the Planning students were at a lower level of preparation for graduate study than their own, and, in addition, expressed open skepticism about the competence of the Planning Staff. As noted above, our own feelings on these matters are somewhat mixed, but in no way as negative as those of the other departments. We strongly suspect that these negative attitudes reflect Queen's strong and long-standing discipline traditions which are making departments skeptical and suspicious of a new academic programme. The Director, and his University, must evolve ways of dealing with this.

## WATERLOO

### Administrative Structure

The School of Urban and Regional Planning is a separate administrative unit within the Faculty of Environmental Studies. The other units contained within the same Faculty are: Department of Man-Environment, Department of Geography, School of Architecture. The School of Urban and Regional Planning offers planning education and training at all three degree levels: a bachelor's degree in environmental studies (B.E.S.), and an M.A. and Ph.D. in Regional Planning and Resource Development. As implied in an earlier section, we are concerned that there is not a clearer distinction between these three degrees as to their purposes and "output" in terms of the job market for the graduates. As we noted earlier, we believe that if there is to be an undergraduate programme in planning, it should be designed as pre-professional training (or as a good base from which to pursue graduate work in a variety of social sciences or environmental studies) with the master's degree programme as the major entry point into the planning profession. By contrast, the Waterloo faculty sees graduates of their undergraduate programme as directly becoming professionals and the master's programme as focusing on research. Even assuming the validity of this concept, we wonder what Waterloo sees as the purpose of its doctoral degree, which traditionally is thought of as a research--and teaching--oriented degree (also producing high-level professionals for operational agencies). As a matter of fact, our impression of the doctoral programme here (based on a careful study of the course requirements and discussions with faculty and doctoral students) is that it represents just a "little more of the same" in relation to the master's programme; an opportunity for the student to dig deeper into his/her specialization.

We recommend that the Waterloo Faculty review its several degree programmes with the objective of more clearly defining their differences and reflecting these differences in a revised curriculum.

### Curriculum and Academic Programmes

We are concerned that there is so much emphasis in the curriculum and student papers/projects on ecological/natural environmental problems, at the expense of a focus on planning as such. This emphasis was pronounced, for example, in practically all of the student theses and student project papers we sampled. While of undoubtedly high quality, these papers displayed no, or at best very little, planning input. Indeed, we felt that most of them could just as easily have been written in a Department of Geography or Natural Resources. The material we sampled may be a-typical. But the fact that the School sent it to us, when we asked for examples of the best student work, concerns us nevertheless.

There should be no misunderstanding about the point we are making here. There obviously is a place for ecological and environmental studies training and research in universities: indeed, some work in this area certainly should be undertaken in a planning school. Nor do we question the quality of the work being carried out in the Waterloo School, either by students or faculty. What we object to is that it appears to be the major programme focus of the school and is being done under the name of Planning. It seems to us that this work is an extension of the undergraduate degree programme called Man-Environment, and that it should be explicitly recognized as such. Instead of its being part of the programme of the School, consideration might be given to encompass it within the Department of Man-Environment Studies: this unit then would encompass the existing bachelor's programme in this field plus those phases of the current master's and doctoral programmes which are concerned with ecology and man-environment studies. The Planning School could reorganize its curriculum and faculty resources to concentrate more on planning problems, theory and methods.

### Faculty Quality and Size

The faculty of the School is generally of very high quality. There is also a wide variety of disciplines represented among the faculty. However, this itself is the source of one of its weaknesses. Most faculty are highly specialized and "peripheral" to the central subject-matter of planning, theory and methods. Few of the full-time faculty were specifically trained in Planning, at either the master's or Ph.D. levels. This issue of faculty specialization is related to the basic one discussed above, namely, what in our judgement appears to be an overemphasis on ecology and man-environment studies.

We are also concerned about the recent loss of several senior faculty members. If viewed on an individual basis, there is justification in each case, and no cause for worry. But when seen as part perhaps of a "pattern", it does give us cause for concern that perhaps they may have been related to some internal problems in the School.

### Relations with Other Units

The School has very close relationships with the Department of Man-Environment Studies. Three members of the School's faculty have joint appointments with the Department, members of the Department serve as advisors to M.A. students in the School, while others serve on students' thesis advisory committees.

At the graduate level, the strongest links are with the Department of Geography. Half of the graduate courses offered in the School are cross-listed with Geography; half of these are given by School faculty and half by Geography faculty. In addition, Geography faculty are advisors to School M.A. students, and vice versa.

Finally, the School has developed some relationships with other universities. For example, two of the School's faculty have taught courses at Guelph, one of them on a regular basis.

## YORK

The York Faculty of Environmental Studies offers a wide range of multi-disciplinary graduate activities focusing on man/environment relationships in a variety of problem-settings, and leading to the degree of Master in Environmental Studies (M.E.S.). Accordingly, our major discussion and evaluation of this Faculty is found in Part Two of this report, where environmental studies programmes are discussed. Here, we shall confine our remarks to what we have been referring to throughout Part One of this report as the so-called "planning component" of the York Faculty.

While York students select an Area of Concentration as well as membership in one of four Programme Groups (Practice in Intervention, Practice in Analysis, Theory in Intervention, or Theory and Methodology), the Faculty does not formally--for curriculum, administrative, or other purposes--classify students according to their specific focus or area of concentration. The programme treats the entire student body as a total integrated group in which each individual area of concentration may be expected to embrace aspects of the total curriculum. Moreover, the Faculty is quite adamant that it is not a planning school nor is it educating/training professional planners.

Nevertheless, it is quite clear that a large proportion of its students select "planning", or some aspect of planning, as their Area of Concentration; that many of these students view urban and/or regional planning as their career-goal and, indeed a large number of them have obtained jobs in planning agencies or in planning units within functional departments of government; and that the Town Planning Institute of Canada has recognized those York students with planning as their Area of Concentration as qualifying for membership in the Institute, on the same terms as the graduates of the more "traditional" planning schools. The Faculty hopes that those of its products who enter the planning profession will mould the profession to meet their individual capacities to serve society, and has no obvious wish to tailor its programme to the demands of any professional body, but it is still true that it will, in spite of itself, continue to produce a substantial number of professional planners.

As noted earlier, based on data supplied us, it turns out that approximately 38% of the York students select planning as their Area of Concentration (including, among others, social planning, recreation planning, and health planning, as well as the more traditional fields such as urban or regional planning). Most of them are also members of the Practice in Intervention Programme Group. We have used this percentage to calculate the relevant data for the so-called planning component at York throughout this report and treat this component as if it were, so to speak, a separate planning school on par with the other Ontario planning schools that we have reviewed.

The Associate Dean of the Faculty, in his covering notes transmitting the data on planning concentrations (which we requested), explained that those who designate planning as their area of concentration do not exhaust the total number involved in the field of "planning" as normally defined. Many students who have not used the term "planning" are in fact involved in planning courses and developing planning principles and practice in their Area of Concentration. He also notes that a recent survey of the educational objectives of students in the main introductory planning course, indicated that less than one-half saw themselves as moving towards career-settings considered to be coincident with the normal objectives of students in a conventional urban and regional planning programme. We acknowledge and commend this, for, undoubtedly, those students who do not see their career-settings as being coincident with the traditional objectives of urban and regional planning students will fulfill the new planning functions we anticipate in the future.

## TORONTO

Toronto's planning programme is the oldest and most established of all the planning schools in Ontario (and ranks second in all of Canada). It formally began in 1954/55 as the Division of Town and Regional Planning, offering a one-year graduate course leading to a diploma. In 1963, the present 2-year M.Sc. in Urban and Regional Planning was instituted and four years later, the reconstitution of the School of Architecture led to the establishment of the present Department of Urban and Regional Planning which, together with the departments of architecture and landscape architecture, now form a new Faculty.

Partly because it is one of the oldest, but equally important, because it has enjoyed a deservedly good reputation, Toronto has consistently experienced continuing growing enrolments, and has been responsible for a significant number of Canadian-trained planners over the years. By June 1972, Toronto had conferred the master's degree in planning on a total of some 130 persons, which is second to the University of British Columbia (193) in the number of graduates in planning with a master's degree. (Hodge, 1972, up-dated by data from the Toronto and UBC planning schools.)

Until 1971 the size of the school's teaching staff remained more or less stable. Since then, it increased from a full-time equivalent staff of 8-1/4 to 11-1/4 in the 1973/74 session. This added strength was achieved mainly through new cross-appointments with faculty members in other university departments. The School's faculty members are highly qualified and well-trained, many of them in city and regional planning. They are quite active with their own research, and in general, have a noteworthy publication record. These remarks do not apply, of course, to every faculty member, but do characterize the Faculty as a whole.

The Toronto planning programme has traditionally been oriented towards providing a solid and thorough training for professional planners. This is reflected in its curriculum, the background and training of its faculty, and the types of thesis topics selected by the students. In particular, until recently, when it introduced a revised curriculum, the School considered that there does exist a basic core of knowledge and skills in planning and required this of all students. We subscribe to this view, for reasons discussed in an earlier section, and consequently, believe it unfortunate and unwise that its new curriculum no longer requires all students to take a basic set of common core courses. We would urge the faculty to re-evaluate this decision.

Despite declining enrolments in Ontario universities, the Toronto planning school has not as yet experienced any falling-off in the number and quality of its applicants. On the contrary, according to the report of the school to ACAP, the number of qualified applicants in 1971/72 rose by 32% from 1970/71, to over two hundred. This trend has existed for the past several years, and the school anticipates that the number of qualified applicants will rise even higher. The school also reports that during recent years there have been many inquiries regarding the possibility of pursuing a doctoral programme. However, the Toronto school does not propose, in its statement of future plans, to increase its enrolment until it is satisfied on two issues:

(1) It is concerned that the demand for practicing planners may not rise sufficiently enough to absorb the large number of new planners who will graduate from Ontario universities over the next five years. As we discussed in an earlier section, we believe that there will be a demand high enough to absorb

the supply of new planning graduates, as projected by the Ontario schools, including Toronto, but do not envision at this time any need for expansion beyond that. So, in this regard, we would agree with the Toronto faculty that it should not exceed its planned enrolments (for the master's degree) of 25-30 new students per year during the next five years.

(2) The Toronto school is opposed to increasing its enrolments unless and until there is substantial improvement in its space resources and facilities. We strongly agree with this conclusion, for these are totally inadequate for the existing student body and faculty, let alone for an expanded student and faculty population. Indeed, from our standpoint, this situation is the one outstanding negative note in the entire Toronto planning picture. As a matter of fact, this is so serious a problem that we would recommend that the school's proposed Ph.D. programme should not be begun until and unless it is rectified. At a minimum, there would be an urgent need for quiet working space for doctoral students, as well as common, large rooms for seminars and joint research projects.

The latter point logically leads to the issue of Toronto's proposal to institute a doctoral programme in planning. The Committee which appraised Toronto's proposal in 1971, while approving it in principle, did raise several questions, one of them being the availability of those existing faculty members who have been designated the key participants in a future doctoral programme to devote the required time and energy to doctoral students, because of their current heavy commitments to the master's degree students. The faculty's answer to this is that new cross-appointments, and the continued use of three practising consultants to teach planning practice (which absorbs a great deal of time and energy) in the M.Sc. programme, will permit senior staff to concentrate on the research and related activities of the doctoral programme. We agree with this, but would caution that the number of persons currently designated for participation in the doctoral programme should not diminish; otherwise, the programme could suffer in quality, for though the plans call for an annual intake of around 4 doctoral students per year (yielding a total of 8 in any year--a number which we think is reasonable) the school only barely achieves a sufficient number of faculty to justify a doctoral programme.

## Related Departments

The school appears to have fairly good relations with other university departments and units, as reflected in the number of cross-appointments, the service course it offers to undergraduates in Architecture and Applied Science and Engineering, the joint sponsorship of a graduate seminar with the Faculty of Social Work; the number of M.A. and Ph.D. committees for geography, forestry, architecture, and civil engineering students on which planning faculty members serve, and research ties with the Institute for Environmental Sciences and the Centre for Urban and Community Studies. Yet, despite these links with other university teaching and research units, we still feel that the school is not fully exploiting the distinct advantages Toronto offers for inter- and multi-disciplinary work. Indeed, we agree with the comment of one member of the original Ph.D. appraisals committee that these linkages could perhaps be better forged if the Planning Department was separated from the Faculty of Architecture and placed administratively in some other unit of the university, such as the School of Graduate Studies. The place of the Department within the administrative structure of the University should be re-examined so that these advantages can be utilized.

## IV. Planning Recommendations

(1) The proposed Ph.D. programme in Urban and Regional Planning at the University of Toronto should be permitted to proceed, with the enrolment projections in that proposal regarded as satisfactory.

(2) The University of Waterloo should be requested to review the relationships between the B.E.S., M.A., and Ph.D. in Planning, and the relationships between the programmes of the School of Urban and Regional Planning and the graduate work of other departments in the Faculty of Environmental Studies. This review should issue in a clearer understanding of the Faculty's policies on the following:

(a) The relationship between the M.A. and Ph.D. programmes in Planning.

(b) The extent to which the M.A. degree has objectives that coincide with, or are different from, the master's degree in Planning in other Ontario universities.

(c) The relationship between Planning education and research in the School and wider work in environmental studies, especially ecological and land-use studies.

Note: We wish to emphasize once more that this recommendation is not to be understood as implying an adverse judgement on the quality of the teaching or research associated with the Faculty of Environmental Studies as a whole, or the School of Urban and Regional Planning in particular. We regard the quality as high. We do not, therefore, recommend that the School's graduate programme be appraised. We do think, however, that the School is concentrating on matters which might well be done within the Faculty, but are not the School's specific concerns, and that its own specific concerns are being overlooked in consequence.

(3) The University of Ottawa should not increase the enrolments in the programme leading to the M.A. in Geography (Regional Planning) unless and until this programme attains a greater degree of autonomy. We interpret this to mean (a) a separately named Planning degree, (b) a separate administrative unit, distinct from Geography. If this autonomy is not achieved by 1976, we can only recommend that the programme be appraised once more.

(4) Queen's University should give its new Director more tangible forms of support, in the form of a minimum staff complement of six full-time equivalent faculty by 1976. In spite of the valiant work now being done under difficulties, we can only recommend that if this increased support is not forthcoming, the programme at Queen's should be appraised.

(5) Our general recommendation in Part Two regarding a reduction in staff-student ratio at York is, of course, to be taken to apply a fortiori to the students who elect a planning concentration.

(6) Subject to the specific recommendations above, we do not see that the enrolment projections of the Planning programmes in Ontario universities for the next five years can be shown to be too high. We do not think, therefore, that entrenchment for employment reasons would be justified at this time.

(7) We are concerned about the number of planning specializations each of the planning schools is attempting to offer, and at the predominance of programmes with a regional rather than an urban emphasis. We strongly recommend that the schools attempt to allocate planning specializations between themselves with a greater regard for balance and a more realistic recognition of the limits of a small-sized programme. In particular, we recommend that each of the schools should offer no more than three fields of specialization, that the selection of the appropriate fields should reflect the background and interests of the faculty, its ability to offer different specialities, and the size of the school; that Toronto should consider focusing on urban planning; that insofar as possible no duplication should occur among the schools but, in total, they should span a broad range of those specializations which meet the future planning needs of the Province.

(8) While we do not in general favour the introduction of professional planning training at the undergraduate level, we do take the view that a planning school should offer some undergraduate course-work open to students in the university at large, if only on the ground that a professional academic unit should not be wholly parasitic on the main organism of the university. Such an educational contribution can only be in the economic interest of the school itself.

(9) We strongly recommend that in the interests of the Planning profession, and in their own economic interests, the Ontario university planning schools enter seriously into the area of mid-career and refresher courses for practising planners. Such mid-career training, however, should not be confused with the work of the master's degree programmes currently offered.

## PART TWO: ENVIRONMENTAL STUDIES

### I. Traditions and Innovation

A satisfactory definition of Environmental Studies, even within the confinements of graduate teaching and research, is a difficult and complex assignment. The interaction of the natural sciences, social sciences, health sciences, as well as the many professional faculties and schools with responsibilities in the resource fields are almost directly or indirectly concerned with man and his environment. Much work, of course, at the graduate level has been done for years in most universities in at least some areas of this subject. Recent emphasis on the need for better identification of environmental studies in graduate work has developed. As stressed earlier, this report has been strictly designed to include only those areas in graduate schools that have been formally designated as Environmental Studies. This obviously precludes substantial activities in environmental areas that have developed in the health sciences, agriculture, forestry, engineering, and many other schools and faculties.

A basic feature of the conventional paradigm of natural and social science--whether the subject matter is physical, the earth, life, behavioural or political--is the axiom that a hierarchic stratification and structuring permits the most effective division of labour. The way in which scientific disciplines have arisen, have evolved and have sorted out their respective roles is mute evidence of the influence of this axiom. Each discipline maintains an internal hierarchic conceptualization and is itself one level within a larger hierarchy. But a formal division of labour within or between disciplines should always remain tentative, else it ceases to be a convenience and becomes a constraint. We are now well into a process of resorting and restructuring intellectually and institutionally. This has been one of the implicit goals of the environmental renaissance of recent years, but it may be larger than that in motivation and scope. Some of the events include a form of organization in some of the newer universities not fully congruent with the disciplinary taxonomy and structure of older universities; and a proliferation of interdisciplinary institutes and courses within those universities on which the old-style thinking on disciplines remains. Reorganizations in government that have cut through old department-discipline alliances have also occurred.

This is not simply some minor housecleaning within the ivory tower. The status of various disciplines within the priority order of the power hierarchy is changing, in academe and elsewhere, with hurt to some and temporary trauma to all. To some extent the process is a struggle between reforming forces and vested interests; to recognize this is to take the first step toward mitigating unnecessary trauma.

Environmentalists concerned about pollution, our health or that of other living things, as well as ecologists worried about the state of various resources, knew years ago that their campaigns implied a thorough going intellectual as well as an institutional reformation. Considering how far the process has already come, there should be an adequate basis of experience to permit some effective planning of how the reformation might continue. But rational planning does require that a conceptual framework exist. Somewhat paradoxically, rational planning as now generally practised assumes that all frameworks will remain partial, incomplete and then become obsolete. Thus, the minimal and realistic goal of planners may be to reduce the amount of confusion and frustration inevitably associated with the political process.

A number of approaches are being taken by Ontario universities to meet perceived needs for environmental training at the post-graduate level. The programmes have been established in part in response to a recognized need for a comprehensive or integrated approach in solving environmental management problems. The perceptions of "environment" and "environmental management" vary widely and reflect professional or disciplinary biases or viewpoints. Hence, the engineer may perceive environmental management in terms of pollution abatement or waste treatment processing, the biologist in terms of ecosystems management and environmental impact, the social scientist in terms of intervention, life styles, public attitudes and societal change, and the architect in terms of physical design and aesthetics. Each perceives a part (or sub-system) of our whole environmental system.

Collectively, then, the universities lend credence to a broad perception of "environment", and even that of a management system which strives for a more adequate balance between man's activities and the eco-physical system. The environmental movement, as reflected by environmental educational programmes and perhaps even government initiatives, is an important potential vehicle for social and institutional change. It is in this context that environmental graduate programmes in Ontario universities should be viewed.

Before proceeding with a further examination of new models in environmental graduate programmes in Ontario universities, we should recognize the presence of the traditional model that has been standard in Ontario universities, see CHART I. The vast majority of professionals who are now engaged in environmental affairs--in the academic, government, or industrial spheres--generally acquired their specialist qualification at any one of the levels of academic achievement noted in CHART I. This route is still followed by many whose careers may consciously or unconsciously lead to involvement in environmental matters in a professional capacity. It should also be borne in mind that there are many individuals who have acquired their professional competence in environmental work by job experience after they have received their formal education in other areas.

The complexity of environmental problems demands enlightenment and teamwork for their solution. From a basis of training in a single discipline, followed perhaps by experience, a student can equip himself best to provide that enlightenment and share in that teamwork if he has some exposure to the thought-worlds of the other disciplines with whose practitioners he will have to co-operate. This is how the problem of graduate training in Environmental Studies appears to those who retain the traditional model of disciplinary education and academic organization. The problem then becomes one of reconciling the demands of breadth with those of depth, and of harmonizing the environmental and departmental loyalties of students and (especially) faculty. All the programmes we studied have grown up in this conceptual framework; except one.

That one is the programme, or multiplicity of individual programmes, provided by the Faculty of Environmental Studies at York. A quick look at the contrast between the simple linear progression taken for granted in the traditional model in CHART I, and the inevitable complexities involved in trying to create a new model to meet the new needs, as reflected in CHART II, will bring home the difficulty of comparisons between traditional programmes that try to accommodate complex new needs in familiar structure, and this new programme, which is founded on the creation of an academic structure specially designed from its origin to accommodate them rather than the traditional disciplinary divisions. In the one case, an assessor has to judge the extent to which the new needs are met by a system whose elements he recognizes immediately. In the other, he has to attempt to grasp the essential nature of a single unit that has avoided separating those elements from its inception, and is therefore deliberately unlike everything he knows.

It is, however, clear that the opportunities and the dangers will be different in a separate Faculty devoted to environmental studies (even a semi-traditional one like that at Waterloo) from those found where a university relies on interdepartmental cooperation and contents itself otherwise with a "centre" or "institute." In the former case there will be a closer administrative control over course structuring, participation in multidisciplinary seminars and assignments, and supervision of research projects. Unless carefully administered, however, the isolation of staff from their own basic disciplines may in time have a deleterious effect on the quality of performance and, ultimately, on the academic standards of the students. In the latter case, where the university creates an institute or centre which serves as a focal point for graduate research and teaching, this unit really only performs a coordinating function. With the possible exception of the Director and a small support group, the academic staff serving the institute and its programme remain as members of their relevant departments. This permits staff members to remain with their associates in their own discipline and militates against empire-building within the institute. The programme of research and teaching is, typically, supervised and coordinated by a committee under the chairmanship of the Director. But problems are often encountered in the proper evaluation and rewarding of contributions of staff, since this is traditionally done in their home departments and these activities may not be given proper consideration at time of merit consideration. Under an institute system, it is imperative that the Director be experienced, have outstanding credibility in this field and possess excellent leadership qualities. The success of the programme, the cooperation of contributing departments and the development of the proper attitude in the students depend in no small measure on the above credentials. So whichever system is followed, teaching and research organization in Environmental Studies will demand unusually talented (and unusually robust!) administrative officers.

## CHART I

### Traditional model

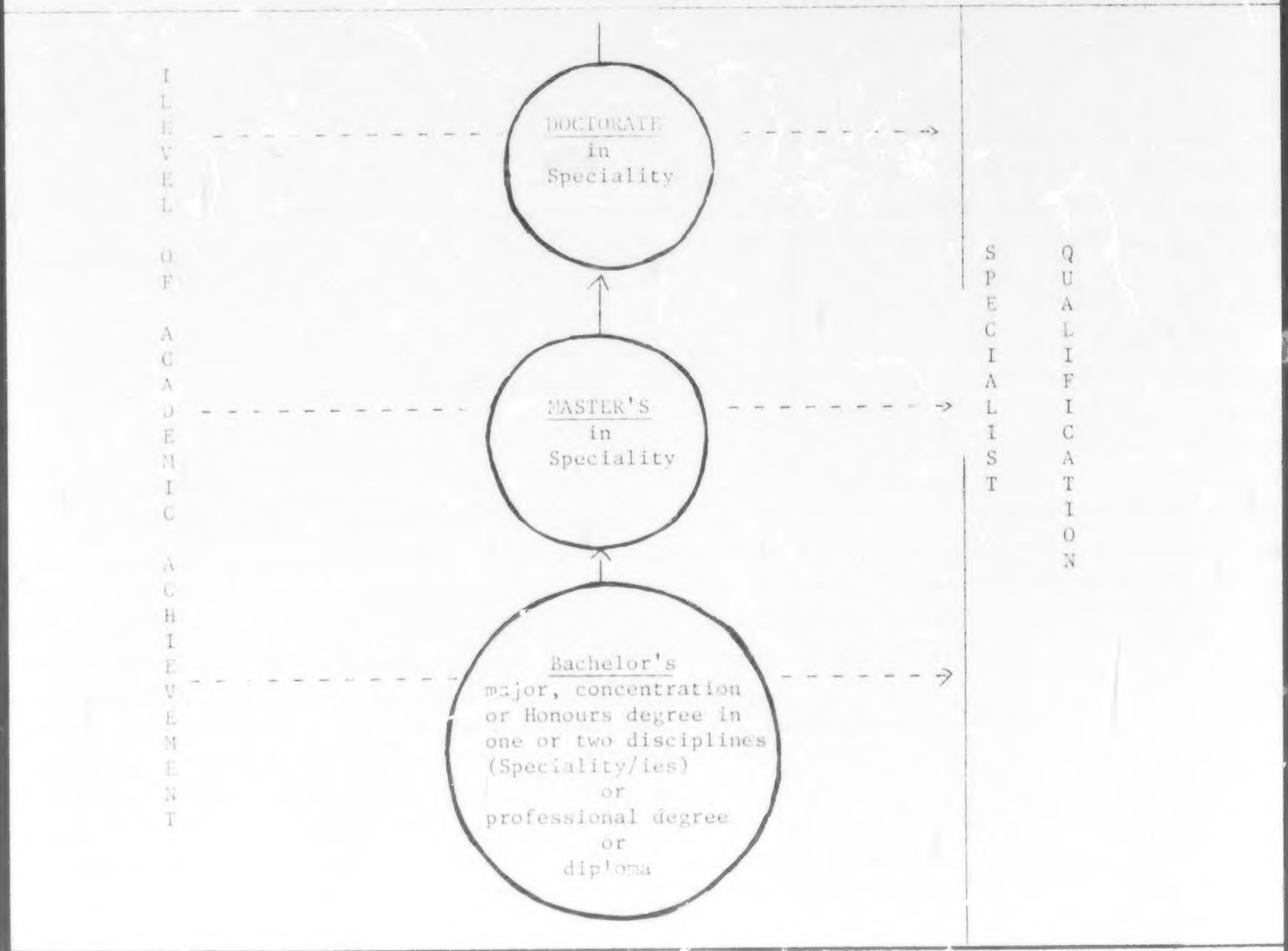
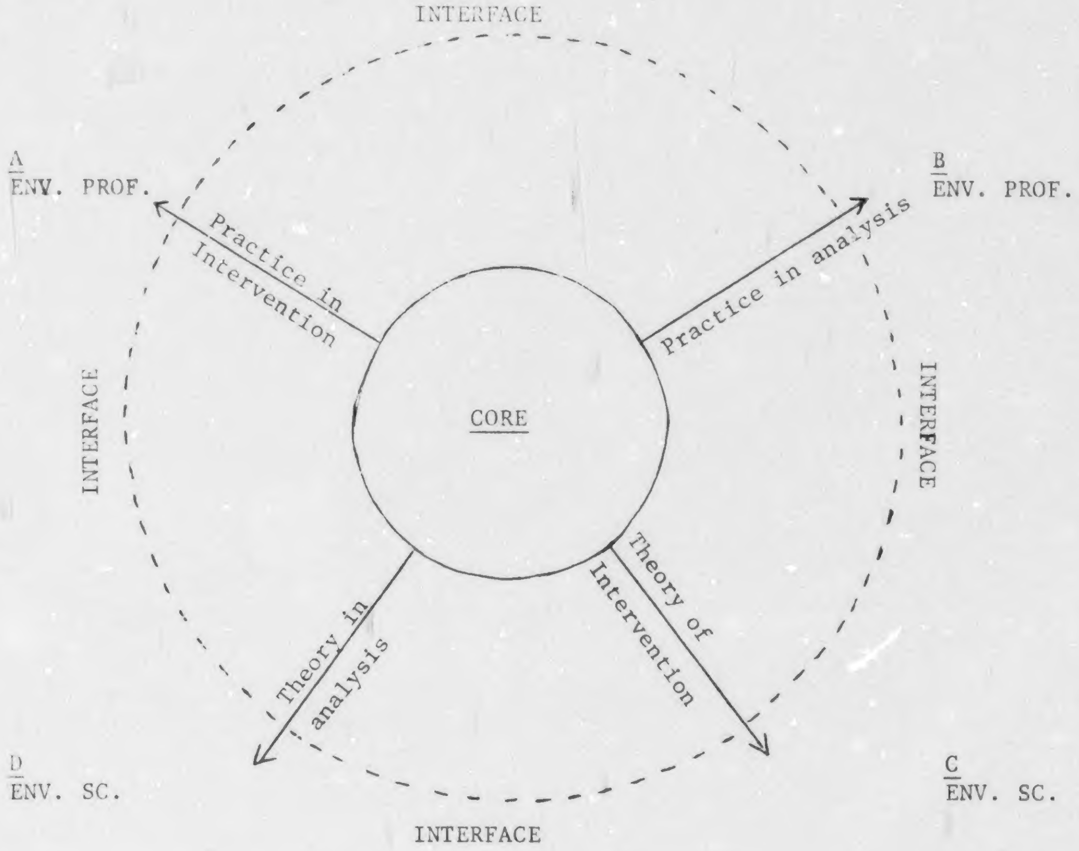

LEVEL OF ACADEMIC ACHIEVEMENT
DOCTORATE in Speciality
MASTER'S in Speciality
Bachelor's major, concentration or Honours degree in one or two disciplines (Speciality/ies) or professional degree or diploma
SPECIALIST QUALIFICATION

CHART II

York Model (institutional perspective)



INTERFACE
A
ENV. PROF.
B
ENV. PROF.
Practice in Intervention
Practice in analysis
CORE
INTERFACE
INTERFACE
Theory in analysis
Theory of Intervention
D
ENV. SC.
C
ENV. SC.
INTERFACE

## II. The Function of Named Programmes

Before discussing the individual graduate programmes assigned to us we must make it clear that we know full well that much (in fact most) of the research and graduate teaching that can be labelled "environmental" in its content and objectives, is carried on in departments and programmes that are not named "Environmental" at all. As random illustrations of this fact, we may mention the Ottawa River study which has involved biology and civil engineering at Ottawa, in collaboration with the National Research Council, the Waste Treatment Processing Programme, and the Air Pollution Laboratory, which involve chemical engineering and medicine, and the Great Lakes Simulation Model Study, involving biology, at McMaster; and the Queen's ecological studies at Pinnacks Lake and in the Thousand Islands. There are many others. We anticipate that the bulk of environmental teaching and research would continue to be done in similar ways. Until a study surveys the full extent of such work, a deep understanding of how far the needs of environmental study are met in Ontario will elude us. It is clear, however, that the justification for named programmes must lie in some special objectives that they, and they alone, are thought to meet. They are likely to be the sorts of objectives that interdisciplinary programmes usually exist to serve (though often do not serve): the provision of a wider and deeper understanding of the range of skills that are required to deal with complex problems; the recognition that the sub-divisions of the university calendar are not precise reflections of compartments of reality. These objectives are of particular relevance, of course, to those who expect to have managerial or decision-making roles that affect our environment.

In view of this, we are saddened by the fact that the impetus to the creation of Environmental Studies programmes is so often confined to the natural sciences. We have been struck by the relative lack of contribution, to date, in these programmes from the social sciences, particularly economics, psychology and sociology. The understanding of the impact of man on his environment and his environment on man, can manifestly be developed only when the full resources of these disciplines are added to those which tell us of the physical impact of the man-environment interaction. We would go further than this, however, and suggest that the humanities also have their role to play. Anthropology surely has much to tell us about the deep differences that exist in the perception of the environment, and the symbolism in which such perceptions are expressed, between industrialized city-dwellers and our native peoples. History surely has much to tell us about the ways in which different cultures down the ages have viewed their relationships to their surroundings. The religious roots of many of these differing perceptions cannot be ignored without unnecessary personal costs. And any profession that requires decision-making also requires, for that decision-making to be wise and not foolish, that the complexities and obscurities of our social and moral thought be subjected to trained scrutiny and understanding, applied with humility--something we suggest, which can be helped to appear by some exposure to ethical or social philosophy. We do not care whether a particular discipline is called a social science or a humanistic study; but the very vagueness of the boundary makes it clear that the case for including the first carries over into the second. Judged in the light of this need, most of the programmes we investigated can only be called primitive.

The requirements for professional manpower in the environmental studies are very difficult to determine at this point in time. So many unforeseen circumstances can change present priorities very rapidly. But we can be very certain that man's concern about the quality of his environment will continue to be of increasing importance and will thrust a new dimension on his planning policies. Many of the problems, will obviously continue to require increasing numbers of specialists in the natural sciences (biologists, chemists, physicists, etc.), as well as those who have taken their specialist's work in applied fields as medicine, agriculture, engineering, forestry and architecture, to mention only a few. These areas are in general well established in Ontario universities and many of them have developed graduate research and teaching programmes at a substantial level and with varying emphasis. Our comments on the social sciences and humanities should not be read as an attempt to deny these facts. They should be read as expressing our opinion that in order to play their proper role in equipping our students to understand and meet our environmental problems, such named Environmental programmes as there are must be of the kind that can provide an integrative framework that will help both kinds of specialists to understand one another. If we accept the fact (and we feel that we must) that the major need for graduate training in environmental matters will remain within established faculties and schools, then the innovative programmes must play their role in a context where this is understood, and the problems of management and decision-making are faced in the light of it.

It is not surprising that the Ontario universities have a very diverse set of approaches to graduate work in Environmental Studies. Such diversity is a strength, not a weakness. The complexity of the field and the many combinations of specialities required, may well dictate a number of diverse programmes. In a period of financial stringency, however, it is important to "monitor" the existing programmes carefully before embarking on new ones. We have tried, in each case, to look with care at the quality of leadership in the programme, the extent to which the stated aims, which usually include some form of "broadening" are actually met by the course and thesis requirements, the calibre of the students, present and past, and the problems that might exist in integrating the programme with the rest of the graduate work of the university and encouraging full faculty participation in it. In general, we are cautiously optimistic about the contribution that the existing and proposed programmes at the master's level are making to the graduate training of those who will be dealing in the future with our environmental problems, and about the quality and enthusiasm of the faculty members associated with these enterprises. We do not, however, see any case at all for the creation of an Environmental Studies Ph.D. "Factory".

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## III. Individual Programmes

### YORK

The Faculty of Environmental Studies is unique. York is the only Ontario university in which the response to contemporary environmental concerns has been placed at the centre of the goals of an academic unit, and not regarded as the product of teamwork between units established for other academic purposes. It is therefore extremely hard to compare it with any other academic operation in Ontario or anywhere else except perhaps for the new programme at Calgary. This difficulty is compounded by the fact that the Faculty has long ago decided that its special direction can only be maintained if it adopts an unconventional mode of supervision, curricular decision, and evaluation. It is obvious that a Faculty of this kind can only find its place in a new university where its natural developments will not run headlong into the vested interests of more conventional academic units, or where it is at least assured of administrative support even if they do. There is no doubt that such support exists at York.

The Faculty stresses that is is (1) Problem-oriented (2) Transdisciplinary (3) focused on Individual Student Programmes. We interpret (1) to mean that the fundamental unit of study is always man-in-relation, i.e. the ways in which men face and adapt to their physical, biological, social, and cultural surroundings. This involves interpreting the word "environment" very broadly. Whether it has to be interpreted so broadly that there is nothing that is not counted as part of the environment is a matter for debate; but we do not think that in practice this is really so, or that it is necessarily a great danger even if it happens. For the Faculty obviously regards itself as a testing-ground for the different interpretations of what the environment consists. We interpret (2) to mean that the incoming students will usually have a fairly high degree of expertise in specialist disciplines, and that they will wish to relate this expertise to the wider context of the understanding of man in his surroundings. This will inevitably mean not only that the Faculty will have to have on its own staff men and women of a wide variety of specialist competences who are prepared to take the time and trouble to learn from each other, but also that it must encourage its students to go outside its own confines in pursuit of their individual needs. We interpret (3) to mean that the student has to work out for himself/herself what the dimensions of a particular man-environment problem are, and what specialist disciplines are required for its solution, and thereby generate a personal Plan of Study.

The "normal" length of a student's programme is eight terms, or 2-2/3 years for obtaining the M.E.S. degree. However, the length of the degree programme may be reduced or lengthened according to the requirements necessary for a student to complete his programme within the terms of his Plan of Study. The Plan is the major statement of a student's programme, defined in terms of a precise area of concentration or subject focus, his membership in one of four Programme Groups (i.e. Practice in Intervention, Practice in Analysis, Theory in Intervention, Theory and Methodology), and the expected period of time necessary to achieve a satisfactory level of the mastery of the elements in the Plan. For example, a student may complete this task in less than eight terms because of either his/her rate of progress or possession of the necessary skills from previous education and experience; under these circumstances, the student will be awarded advanced credit of an agreed number of course units to permit him/her more rapid completion of the programme outlined in the Plan of Study. In practice, the mean length of time taken averages around six terms of study (i.e. involving 10 course units of advanced credit).

As noted earlier, a fairly large component of the York programme involves the training of professional planners, though this is not explicitly recognized as such. What, however, of its other products? The enrolment of the Faculty is large. The Faculty states that it expects to have a steady-state enrolment, from 1973/74 onwards, of about 225 M.E.S. students, of whom, we assume, some 62% will focus on non-planning areas of concentration. The stated areas of concentration of these latter students range enormously, including such areas as "Education/Values" and "Environments of Consciousness" at one end and "Housing and Community Participation" and "Research Submarines/Water Stations" at the other. In other words, all graduate studies that could reasonably be called environmental, be they ecological, psychological, biological, or philosophical, are at least open to the student's exploration, and each student's programme is evaluated in what the Faculty considers to be terms appropriate to its own objectives.

In spite of the unconventionality of this structure, the Faculty did not seem to us to have been at all unable to elicit the support and cooperation of other, traditional departments within the University. Our conversations with scholars in other disciplines revealed real working connections with Administrative Studies, Biology, Economics, Geography, Experimental Space Science, etc. Although the majority of the students in the Faculty come from the social sciences, not all do.

Our conversations with some students indicated a strong enthusiasm for the individual-based programme, and for the often hard and demanding process of self-understanding that it requires. Of course a student who wishes more conventional direction would not enter the York Faculty if he has any sense, for it is not intended for him. We presumed that those who were in it chose it because they did not want a conventional graduate education, and our assumption was enthusiastically confirmed by the students themselves. The students seem to be well-regarded by the faculty members in other departments who share in teaching them.

The academic level of the students is hard to comment upon in conventional terms, since the Faculty does not use, and therefore cannot provide, grade-point statistics. On the basis of a wide range of samples provided by the Dean, however, we feel entirely safe in saying that the previous academic records of those entering (which are, of course, capable of description in conventional terms) are good, and that every student who enters the Faculty receives careful individual encouragement and scrutiny, with careful verbal assessments being entered in the record at every stage in his work. The very low withdrawal rate mentioned to us is probably due in most part to the positive academic effects of this encouragement.

The faculty members come from very wide backgrounds, and include members or associate members in philosophy, history, and fine arts as well as the natural and social sciences. There can be no doubt of the genuinely interdisciplinary nature of the composition of the Faculty, or of the high quality of faculty members.

Morale is in our view exceptionally high, both among faculty and among students. Nowhere else in our visits did we meet comparable enthusiasm or dedication. This is enough to justify the existence of an academic programme, in these days of sagging commitment and sail-trimming. This is the only atmosphere in which genuinely adventurous cooperative research and teaching in environmental studies is likely. On the other hand, there are dangers. The individual orientation is likely to permit the approval of inadequately-grounded studies; a criterion of achievement that is geared to an individual project runs the risk of being self-satisfying. We did have the impression that some of the student reports sent to us were either rather routine and conventional, or, at the other extreme, ill-thought-through.

Another grave risk is that the constant personal attention given to the students is so demanding on the time of faculty members that their research and scholarly output will be meagre. This is unfortunate, for the very transdisciplinary cooperation which the Faculty exists to foster should yield exciting results among its own teaching members. This problem can only be rectified by adjusting the faculty-student ratio, either by lowering the total steady-state enrolment projection, or by increasing the number of faculty. Our preference would be a "little bit of both" (i.e. a steady-state enrolment of no more than 200 students, with a total full-time equivalent faculty of around 30 members). The Dean, we should note, has become aware of this problem and hopes to deal with it by increasing numbers of faculty, keeping the steady-state enrolment at 220. (We must note, however, that the current enrolment of all students, including some who are on leaves of absence, totals some 260!).

In short, what the York Faculty seems to us to be trying to produce is a general graduate education based upon the concept of man in his environment; a mini-university gathering into itself students who want this special challenge, and faculty members who can sustain it. In the interests of the success of this unique enterprise, the faculty-student ratio should be reduced, even at the price of budgetary privilege. In our view Ontario has in this programme the only genuine educational innovation that we have encountered, and it should do everything in its power to sustain it, with all its risks. Genuine innovations in University education are hard to come by, and the Ontario academic community needs this one.

But only one.

## GUELPH

The named graduate degree programme in environmental studies at the University of Guelph is the M.A./M.Sc. programme in Resources Development, which is offered by the Centre for Resources Development. This Centre has been the source of considerable institutional soul-searching, and at the time of writing the University is, we understand, seeking a new Director. The staff of the Centre consists of the Director and his office staff, the faculty being composed of members of related University departments. Students enrol in the Centre, but are registered in the departments which provide for their research. The aim of the Centre was described to us as that of "helping departments to do things together that they cannot do themselves." Although such an objective is irreproachable, and is of the essence of any interdisciplinary undertaking in a University with an established departmental structure, there is much evidence that the Centre has been at best a moderate success when judged by this objective.

Each student is required to take three core courses, of which two are given by the Centre, and the other by the Department of Zoology. The Zoology course is entitled "Ecological Foundations of Resource Use"; the two courses given by the Centre are general courses on Planning. In other reppects the contribution of the Centre is wholly administrative. Students enrolled in the Centre may have some pre-requisites waived as a result of being enrolled in it. Student's supervisory committees are interdepartmental.

Our impression was that the faculty associated with the Centre viewed it with more enthusiasm than either the administrative officers or the students. This may be the result of fruitful research collaboration that could obviously take place without any Centre at all. Certainly there was a good deal of interest in telling us about research projects, such as the Ontario Hydro Project, the A.R.D.A. Land-Use Study, and the Hanlon Creek Study. In all of these the pre-eminence of the University of Guelph in disciplines relating to land use and physical resources is obvious. But these very strengths seem to [illegible] to be militating against any genuinely interdisciplinary teaching commitment. The students felt that they and their faculty advisors were too intimately tied in with their "home" departments for the Centre to do more than offer them a chance to become sporadically aware of one anothers' connecting interests. The funding of students seemed to be largely through the research grants of their professors, who therefore were unable, or unwilling, to encourage theses of a meaningfully interdisciplinary character. The theses we were told about (by their authors) were in soil-science topics that were not interdisciplinary at all.

At one point in our visit we were told by a senior faculty member that our enquiry was too narrowly conceived, since all the disciplines that study the land and its uses are environmental disciplines. We agree with the latter claim, but would insist that this very fact makes the distinctive functions of the Centre harder to understand and harder to fulfill. What is it that the Centre enables departments to do that they are not able to do without it? A special Senate subcommittee has attempted to answer this question. Its report, now approved by Senate, stresses that the Centre must be "an administrative focal point for interdisciplinary studies as related to resource development", and must stress an "integrative approach". At the teaching level (and we recognize that the Centre is not only a focal point for teaching) it is said that the Centre must coordinate programmes that "emphasize the need to comprehend the interrelationships in the field of resources development within a framework of public policy considerations". This report broadens (by implication) the statements of short-range, intermediate-range, and long-range goals for the Centre stated in the Centre's Outline Plan for the Future, 1969, of which an excerpt was sent to us by the University. These proposals seem not to include more than token reference to studies in the area of public policy, which, if taken seriously, would require far more contributions to the Centre from the Social Sciences than seems to be available at present.

As the Outline Plan states, Guelph is the obvious centre for environmental studies that are explicitly rural rather than urban in character: especially land-use and ecological studies. These, however, only become interdisciplinary in the sense that the existence of a Centre implies, when they cannot be carried on under the administrative supervision of the existing departments. It is hard to see that the University has yet identified which programmes are really in this category, or that it has proceeded beyond the stage of a general awareness that total Balkanisation of the study of resources is undesirable. In this connection we cannot greet with any enthusiasm the prospect of a course-only degree programme in the Centre, since it seems to us that the challenge to genuinely interdisciplinary cooperation can only be met when the Centre is able to encourage its students to do research for theses in a manner which crosses the special competences of individual departments. The best that can be said at present is that the University is aware of all the problems that we have noticed, and seems determined to monitor the development of the Centre very carefully. In these circumstances, we feel that the expected increases in enrolments to 32 (double the present figure) by 1977/78 should be regarded as an absolute maximum until the University feels more confident itself in the value of the Centre. The students who have participated in it are of sound quality, but the averages reported to us do not suggest that they are among the University's most distinguished.

It seems to us that the future of the Centre for Resources Development will lie in the hands of its future Director. The appointee should be someone who can, not only command respect, but who is able to inspire and initiate the sort of cooperative projects that the Centre exists to foster. A humdrum appointment would guarantee that the University did not really respond to the need to integrate the established areas of research and graduate teaching for which it is famous. A strong appointment would enable the institution to forge the links between the resource departments and the social sciences and humanities that would prove it is not merely a fortuitous assemblage of distinct academic units. The situation is unique: there are strong resource departments with long histories, and there are the new research and teaching developments that a new University can offer. The combination of these into a productive and pedagogically exciting unity is a challenge that really should be met.

## TORONTO (IESE)

Apart from the Department of Urban and Regional Planning, discussed elsewhere in this report, the only potential named degree programme falling within the scope of our study at Toronto is the integrative master's degree proposal put forward by the Institute for Environmental Science and Engineering.

IESE is a creation of the School of Graduate Studies, and is an interdisciplinary group drawn from the natural and applied sciences and to a lesser extent the social sciences. Its teaching has hitherto consisted of courses that are designed to prepare students trained in specialist disciplines to do interdisciplinary work on environmental problems, and explore the possibilities of fruitful cooperation between one discipline and another. At present IESE's courses are acceptable in the graduate programme of other departments, and IESE does not itself register students.

The Director informed us that although IESE's members are not wholly convinced of the need for a separate degree, a proposal for an integrated master's programme is now before the School of Graduate Studies. The staffing arrangements would be novel, as IESE does not wish to have full-time staff of its own, who would compose an ongoing establishment. It prefers to attempt staffing on a "floating" basis from established

University departments. Although the Institute's submission to ACAP speaks of the proposal as though it would require the creation of a new department, we understand from our discussion with the Dean that a separate degree would not in fact require the creation of a separate department.

The main driving force to a separate programme, here as elsewhere, is the conviction that only such a programme, and the formal recognition that it would imply, could provide some assurance of the stable and serious faculty involvement that is a condition of success. The obvious risk is that all that would result would be one more department, with the same barriers around it that are present elsewhere, and are making it necessary. It seems that IESE has produced very mixed reactions, and has had problems of public relations within the University. We are convinced, however, that only some forum such as that which the proposed programme would offer for master's students can the opportunities (and the limits) of interdisciplinary research and teaching be explored. This does not mean that we are of the view that research and teaching on environmental problems belong primarily in such a grouping: we take the contrary view. But the time is ripe for students embarking on their researches to face the problems which their undergraduate specializations have caused, and to try to deal with them while their minds are still flexible enough to perceive solutions. This would suggest that a master's programme of the kind proposed would have a valuable contribution to a mammoth graduate university; and that its products would most properly continue their doctoral studies back in the discipline departments to which they could then return with broader minds.

The University has decided to appoint a Director for IESE for a five-year period, and we were informed that the President has recommended that it also have three Associate Directors including one for curriculum and liaison with departments. We hope that the Institute's problems can be resolved without its having to be given departmental status outside the School of Graduate Studies. It belongs in it, though we suspect its pedagogical role would require to be limited and universally understood.

## WESTERN ONTARIO

At present, the only named graduate degree programme in environmental studies is the Master of Engineering (Environmental Engineering). This programme contains 25 full-time students at present, and is predicted to double its size within the current five-year period. The issue which awaits resolution at Western is whether this admirable programme must remain the only named degree programme in environmental studies. In our view, however, this latter question is resolved; further broadening of the scope of the M.Eng. degree is not desirable.

We were informed that the environmental option in the M.Eng. was primarily intended for engineering graduates who wished to prepare themselves for work in environmental protection or improvement, but that the existence of the programme has aroused a good deal of interest among students from other parts of the University. At present approximately one quarter of the students are from outside the Faculty of Engineering Science, in consequence of this interest, though it is clear that the presuppositions of instruction continue to be such that students without prior training in areas like applied mathematics that is at least comparable with that of engineering graduates would not fit easily into the programme.

It seems clear that the programme has drawn students from outside its intended clientele because of the growing interest in environmental problems, and because it happens to be in the Faculty of Engineering Science that the necessary administrative initiative have been taken to meet this interest. In our view the Faculty deserves warm commendation for its initiative. We feel, however, that the Faculty is not in the best position to accommodate a widening demand for environmental training within the confines of its existing programme. The M.Eng. has a definite "character of its own", and its potential usefulness derives, surely, from this special character. To attempt to accommodate interests and concerns that are likely to develop among students whose primary training has been in (say) geography or economics or even biology is to burden the Faculty of Engineering Science with responsibilities which belong elsewhere. We were forced to conclude this, in the face of at least one stridently dissenting voice, for two reasons. The first is the very fact that interest in this work has clearly spread widely in the Faculty of Social Science, which would suggest that attempts to retain organizational responsibility in Engineering Science would lead, at the least, to some mutual culture-shock. The second is that in our judgement, the reports by M.Eng. students that the Faculty was kind enough to send to us seemed to show an unfortunate unevenness: those on air or water pollution, or the pulp and paper industry, being clearly superior in quality to those dealing with social and educational problems. This suggests that the natural academic confines of the M.Eng. have already been exceeded, and that reports or theses of this latter kind would best be restricted to some other programme.

None of this implies that the University of Western Ontario should necessarily develop another named degree programme in Environmental Studies, e.g. the M.E.S. It might be decided that appropriate environmental emphases can best be contained within existing departmental programmes. But the idea of the M.E.S. has clearly gained wide currency, and is, we understand, under active consideration at the present time by the Faculty of Graduate Studies. It is still in doubt whether a degree proposal will come forward from Western. If it does, however, it will clearly be more broadly interdisciplinary than the M.Eng. can reasonably hope to become, and it will be the result of lively cooperation in research and teaching among members of several departments. An M.E.S. is a natural development on a campus where the principle of having a named environmental degree has already been accepted. If this development does follow, we think that ACAP should welcome it.

## IV. Environmental Studies Recommendations

(1) The Faculty of Environmental Studies at York deserves continued recognition as one of the few genuinely innovative enterprises in the Canadian university community. Its staff-student ratio should be improved, both by the reduction of enrolments and the addition of faculty members. It would be of obvious value if new faculty could include some with a "hard science" background.

(2) The Centre for Resources Development at Guelph should develop as a centre of rural environmental studies. It should provide a stronger core programme for its master's students, and should include much more substantial contributions from the social sciences in its core course requirements. We do not consider it should offer a course-only degree, but should attempt to make better use of the University's faculty strengths by developing genuinely interdisciplinary thesis work.

(3) (a) The M.Eng. programme in Environmental Engineering at Western Ontario should not broaden its objectives, though there is no objection to its increasing its enrolments as projected.

(b) If an M.E.S. proposal is forthcoming from Western, it should be welcomed, provided it involves central participation from the social sciences and some participation from the humanities.

(4) The proposal for an integrated master's degree programme to be offered at Toronto by the Institute for Environmental Science and Engineering should also be welcomed, provided it can be staffed in a manner the University considers viable, and provided, once again, there is a substantial admixture of social science, and if possible, humanities, components.

(5) For the present at least, we see no justification for the programmes at Guelph, Western, or Toronto to be regarded as embryonic Ph.D. programmes. We view them as sequent to traditional, discipline-oriented undergraduate programmes, providing a stage of enrichment which will equip students to proceed, if they wish to do so, with doctoral studies in traditional discipline departments, in an environmentally-informed manner. Such doctoral candidates would, at the worst, function as creative nuisances in such doctoral programmes, providing them, from within, with appropriate environmental emphases. The suggestion that master's programmes in Environmental Studies should grow into doctoral programmes also in Environmental Studies seems to us to lack justification.

(6) Recommendations 2, 3b, and 4 are made on the explicit understanding that the programmes referred t[illegible]l have real, not merely token,

participation from the social sciences and humanities. We feel strongly about this requirement, and do not as yet see clear enough signs that it will be met in any of these three instances. We strongly recommend that ACAP assume the responsibility for "policing" this aspect of ongoing or future programmes, by creating a standing committee, distinct from the present Discipline Group, that will be primarily composed of social scientists and humanists, and will have the right to recommend rejection of proposals that are deficient in this respect. We see this as a necessary protection against the creation of paper empires that fail to meet the real need for intellectual integration and instead serve merely opportunistic purposes.

(7) In accordance with our Recommendations in Part one, we recommend here that the Faculty of Environmental Studies at Waterloo review the scope of its graduate responsibilities in environmental education, in order to ensure that it can continue to fulfill these without detriment to its Planning programme.

(8) To parallel our Recommendation 9 in Part One, we recommend here that universities with Environmental Studies graduate programmes consider offering diploma or other "refresher" courses for practitioners in professions with environmental impact.

(9) No other developments in Environmental Studies degree programmes should be undertaken until a far wider study has been conducted of environmental-related education and research in Ontario at all levels. Our terms of reference, and our own limitations, have dictated that this has not been such a study; but until it is carried out, the wisdom of broadening formal degree programmes beyond what has been recommended here cannot be fairly assessed. It should be undertaken as soon as conveniently possible, so that well-founded faculty initiatives are not discouraged unnecessarily.

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# APPENDIX B

## DISCIPLINE GROUP COMMENTS

PLANNING AND ENVIRONMENTAL STUDIES DISCIPLINE GROUP - B1

GEOGRAPHY DISCIPLINE GROUP - B8

MEMORANDUM

TO: M. A. Preston, Executive Vice-Chairman,
Advisory Committee on Academic Planning

FROM: The Planning and Environmental Studies Discipline Group

SUBJECT: Comments On The Report Of The Consultants To The Planning and Environmental Studies Planning Assessment

DATE: July 17, 1974

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In response to the ACAP request of May 3, 1974, the Discipline Group provides the following comments on the final report of the consultants to the Planning and Environmental Studies Planning Assessment.

Our comments are provided in three parts: the first part consists of general comments on the planning assessment and on the report, and the latter two parts are comments on the specific recommendations of the consultants relating first to Planning and secondly to Environmental Studies.

General

1. The Discipline Group continues to be unhappy with the definition of Planning and Environmental Studies as a single entity and this concern is clearly shared by the consultants, as reflected in the division of their report into two separate sections dealing independently with the areas of Planning and Environmental Studies. The Discipline Group would urge ACAP not to assume specificity or general agreement with respect to the meanings of the terms Planning and Environmental Studies because neither is well-defined in itself and certainly they are not well-defined together.

   The Discipline Group would request ACAP to disband the Planning and Environmental Studies Discipline Group as it is presently constituted and to establish two new groups in its place; one relating to the field of Planning and the other relating to the field of Environmental Studies to deal independently in the future with matters relating to each of the fields.

2. The Discipline Group continues to be worried by the limited scope of the planning assessment. The Group believes that restricting the analysis, (1) to graduate work only, and (2) to the Province of Ontario only, leaves significant gaps in the understanding of the place of graduate work in these two fields.

3. The Discipline Group still believes that not enough consultants were involved in the process of evaluation. Given the ambiguous and uncertain specification of the fields involved, the Group believes that it would have been well justified to have had at least two consultants putting their minds to the substance of each of the fields. The consultants did a highly commendable job given the situation in which they found themselves but additional expertise in each field would have been helpful in the assessment.

4. The Discipline Group feels that the report, in general, is rather more analytical than innovative and does not go far enough beyond the data at hand in establishing a "futures" orientation and in providing guidance for the evolution and development of graduate work in the two fields. The report does not seem to reflect the true social significance of the two fields, which we believe is disproportionate when one considers the numbers of people involved in Planning.

5. The Discipline Group fully acknowledges that these general comments must be taken in the context "that the Group itself has not been able to come to grips with the issues of graduate education in Planning and Environmental Studies in the setting of a'futures-oriented' planning framework".

## Planning Recommendations

1. *The proposed Ph.D. program in Urban and Regional Planning at the University of Toronto should be permitted to proceed, with the enrollment projections in that proposal regarded as satisfactory.*

   The Discipline Group agrees that there should be development of doctorate level work in Planning. Furthermore, we believe that any doctoral program should take full advantage of the wide array of resources available in the Province both within the given university which houses the program and also in other universities.

2. *The University of Waterloo should be requested to review the relationships between the B.E.S., M.A., and Ph.D. in Planning, and the relationships between the programs of the School of Urban and Regional Planning and the graduate work of other departments in the Faculty of Environmental Studies...*

   The Discipline Group believes that an indepth study of Planning education at all of the various levels is needed, not just in one university but in all universities and colleges in the Province and should be undertaken at an early date.

3. *The University of Ottawa should not increase the enrollments in the program leading to the M.A. in Geography (Regional Planning) unless and until this program attains a greater degree of autonomy. We interpret this to mean (a) a separately named Planning degree (b) a separate administrative unit, distinct from Geography. If this autonomy is not achieved by 1976, we can only recommend that the program be appraised once more.*

   The Discipline Group hopes that ACAP will not make the general assumption that any particular administrative structure or organization is necessary for graduate work of high quality. The Group believes that there is a tendency in Ontario, because of tradition and because of the mechanisms for funding higher education, toward the view that a particular form of administrative organization is, by its nature, better than others. The Group does not accept this view.

4. *Queen's University should give its new Director more tangible forms of support, in the form of a minimum staff complement of six full-time equivalent faculty by 1976. In spite of the valiant work now being done under difficulties, we can only recommend that if this increased support is not forthcoming, the program at Queen's should be appra*[illegible]

In that this recommendation relates to the notion of critical mass and minimum size, the Group believes that there is room in the province for a wide variety in the size of programmes, that there is no necessary correlation between size and quality of work, and that there is no firm evidence to support any particular minimum size of student body or faculty complement.

5. *Our general recommendation in Part Two regarding a reduction in staff-student ratio at York is, of course, to be taken to apply a fortiori to the students who elect a planning concentration.*

In general, the Discipline Group would favour improvement of faculty/student ratios, however, would repeat its view that the faculty/student ratio is not, in itself, a measure of the quality of work being done but only a measure of what resources are available to do that work.

6. *Subject to the specific recommendations above, we do not see that the enrollment projections of the Planning programs in Ontario universities for the next five years can be shown to be too high. We do not think, therefore, that retrenchment for employment reasons would be justified at this time.*

The Discipline Group agrees that in the context of a dynamic field, job opportunities will continue to grow in new and unexpected ways and that the positive projections for growth in the field should be underlined.

7. *We are concerned about the number of planning specializations each of the Planning Schools is attempting to offer, and at the predominance of programs with a regional rather than an urban emphasis. We strongly recommend that the schools attempt to allocate planning specializations between themselves with a greater regard for balance and a more realistic recognition of the limits of a small-sized program. In particular, we recommend that each of the schools should offer no more than 3 fields of specialization, that the selection of the appropriate fields should reflect the background and interests of the faculty, its ability to offer different specialties, and the size of the school; that Toronto should consider focusing on urban planning; that insofar as possible no duplication should occur among the schools but, in total, they should span a broad range of those specializations which meet the future planning needs of the Province.*

The Discipline Group would urge that great caution be taken in interpreting this recommendation. The Group would re-emphasize that the field of Planning is not sharply defined and, moreover, that there is no agreement on the identification of "specializations" within the field. The Group would agree that it is important and helpful in an educational process to utilize a framework of "areas of concentration" or "specializations" or "focus" to order and "discipline" a program of study but that such identification should not then be taken to constrain the evolution of the field by identifying explicit and mutually exclusive "specializations". On the contrary, the Group is firmly of the view that the field is inherently synoptic and broad and therefore, any effort to narrow down and to specify sharp boundary conditions within the field should be resisted. A rationale for identifying a given array of specializations does not presently exist and could only develop over time as the planning programs themselves focus on this problem.

The Discipline Group would resist strongly the concept of limiting each of the planning programs to a given number of "specializations": each of the programs must see the field whole and must be able to explore into a wide variety of subject matters. The Group would agree that no program should "claim" a special area of competence that cannot be backed up by appropriate human resources. However, these resources are by no means limited to the formal planning program itself. In every instance, the members of the Group firmly believe that the resources of other parts of the university should be brought to bear in this field and that resources in other universities should be tapped.

The Discipline Group firmly believes that duplication in fields of "specialization" is not inherently bad and, indeed, where significant differences in viewpoint exist that such duplication should be encouraged.

8. *While we do not in general favour the introduction of professional planning training at the undergraduate level, we do take the view that a Planning School should offer some undergraduate course-work open to students in the University at large, if only on the ground that a professional academic unit should not be wholly parasitic on the main organism of the university. Such an educational contribution can only be in the economic interest of the School itself.*

Involvement of the faculty members of the various planning programmes at the undergraduate level could be adequately evaluated only in a context of a general study of undergraduate opportunities and activities in the province as they relate to the field of planning. The Discipline Group would agree that most, if not all, faculty members should have an involvement at the undergraduate level. However, the Group does not believe that such involvement should be encouraged for financial reasons but rather for the intrinsic value of the educational objectives. The particular manner in which this involvement takes place should vary in accordance with the needs and particular circumstances of the university. It is the general sense of the Discipline Group that there is, at present, a very heavy involvement of faculty members in undergraduate work in their universities.

9. *We strongly recommend that in the interests of the Planning profession, and in their own economic interests, the Ontario university Planning schools enter seriously into the area of mid-career and refresher courses for practicing planners. Such mid-career training, however, should not be confused with the work of the Master's degree programs currently offered.*

The Discipline Group agrees that the planning programs should be heavily involved in providing educational opportunities for practicing planners during their careers. However, the Group believes that such opportunities could well be integrated and related to the work of master's degree programs and should not necessarily be separate from them. Again, the Group believes that a wide variety of responses to this need should be encouraged.

## Environmental Studies Recommendations

The Group views the section of the report dealing with Environmental Studies as somewhat less analytical than the section dealing with Planning, given the even greater uncertainty in the definition of the field and the ambiguity of its substance. The Group would, therefore, urge considerable caution in drawing any firm conclusions from the recommendations of the consultants as they relate to Environmental Studies.

1. *The Faculty of Environmental Studies at York deserves continued recognition as one of the few genuinely innovative enterprises in the Canadian university community. Its staff-student ratio should be improved, both by the reduction of enrollments and the addition of faculty members. It would be of obvious value if new faculty could include some with a "hard science" background.*

   The Group has no comment on this recommendation.

2. *The Centre for Resources Development at Guelph should develop as a centre of rural environmental studies. It should provide a stronger core program for its Master's students, and should include much more substantial contributions from the Social Sciences in its core course requirements. We do not consider it should offer a course-only degree, but should attempt to make better use of the University's faculty strengths by developing genuinely interdisciplinary thesis work.*

   The Group has no comment on this recommendation.

3. *(a) The M. Eng. program in Environmental Engineering at Western Ontario should not broaden its objectives, though there is no objection to its increasing its* *enrollments* *as projected.*

   *(b) If an M.E.S. proposal is forthcoming from Western, it should be welcomed, provided it involves central participation from the Social Sciences and some participation from the Humanities.*

   The Group has no comment on this recommendation.

4. *The proposal for an integrated Master's degree program to be offered at Toronto by the Institute for Environmental Science and Engineering should also be welcomed, provided it can be staffed in a manner the University considers viable, and provided, once again, there is a substantial admixture of Social Science, and if possible, Humanities, components.*

   The Group has no comment on this recommendation.

5. *For the present at least, we see no justification for the programs at Guelph, Western, or Toronto to be regarded as embryonic Ph.D. programs. We view them as sequent to traditional, discipline-oriented undergraduate programs, providing a stage of enrichment which will equip students to proceed, if they wish to do so, with doctoral studies in traditional discipline departments, in an environmentally-informed manner. Such doctoral candidates would, at the worst, function as creative nuisances in such doctoral programs, providing them, from within, with appropriate environmental emphases. The suggestion*

*that Master's programs in Environmental Studies should grow into doctoral programs also in Environmental Studies seems to us to lack justification.*

In general, the Discipline Group does not believe that there is firm evidence either for or against any particular form of doctoral work in Environmental Studies. However, the Group does believe very strongly that there should be opportunities for innovative programs at the doctoral level.

6. *Recommendations (2), (3)(b), and (4) are made on the explicit understanding that the programs referred to will have real, not merely token, participation from the Social Sciences and Humanities. We feel strongly about this requirement, and do not as yet see clear enough signs that it will be met in any of these three instances. We strongly recommend that ACAP assume the responsibility for "policing" this aspect of ongoing or future programs, by creating a* *standing* *committee, distinct from the present Discipline Group, that will be primarily composed of Social Scientists and Humanists, and will have the right to recommend rejection of proposals that are deficient in this respect. We see this as a necessary protection against the creation of paper empires that fail to meet the real need for intellectual integration and instead serve merely opportunistic purposes.*

The Discipline Group agrees that in the development of programs in Environmental Studies there should be active and visible participation by the social sciences and the humanities. However, the Group feels that the "policing" of this activity should be done by those involved in the field of Environmental Studies and not by an external group. The Group believes that the introduction of an external "policing" group would inevitably lead to confrontation rather than to the constructive and positive participation in the process which the Group believes is essential. The Group has recommended that the present Discipline Group in "Planning and Environmental Studies" be disbanded and that two new Discipline Groups, each more appropriately related to the relevant field be constituted. The new Discipline Group in Environmental Studies should be developed in such a way as to give it the basis for overseeing the development of the field. The concerns expressed by the consultants in this recommendation should be met in the formation of the new Group.

7. *In accordance with our Recommendations in Part One, we recommend here that the Faculty of Environmental Studies at Waterloo review the scope of its graduate responsibilities in environmental education, in order to ensure that it can continue to fulfill these without detriment to its Planning program.*

The Group has no comment on this recommendation.

8. *To parallel our Recommendation #9 in Part One, we recommend here that universities with Environmental Studies graduate programs consider offering diploma or other "referesher" courses for practitioners in professions with environmental impact.*

The Group has no comment on this recommendation.

9. *No other developments in Environmental Studies degree programs should be undertaken until a far wider study has been conducted of environmental-related education and research in Ontario at all levels. Our terms of reference, and our own limitations, have dictated that this has not been such a study; but until it is carried out, the wisdom of broadening formal degree programs beyond what has been recommended here cannot be fairly assessed. It should be undertaken as soon as conveniently possible, so that well-founded faculty initiatives are not discouraged unnecessarily.*

The Group agrees that a far wider study of educational opportunities and prospects in Environmental Studies should be undertaken. However, the Group does not believe that a further formal "planning assessment" would be useful at this stage. Rather, the Group believes that the field should be allowed to evolve and develop until the nature and parameters of the field are more clearly defined, but that during this process the activities of the programs should be carefully monitored and information gathered that would provide the basis for further study. We believe that the new Discipline Group in Environmental Studies should have an important role to play in such a study. The Group agrees with the consultants that such an evaluation should take a far reaching and imaginative approach to the entire context of environmentally related education in the Province. We do not believe that developments in the field should be arbitrarily constrained during this period.

## Comments by the Geography Discipline Group on the final report of the Planning and Environmental Studies Assessment

The group is pleased with the general quality of the report, and congratulates the consultants on having produced a valuable contribution.

Within the terms of reference the consultants are restricted to an analysis of "named degree" programmes, and programmes per se only. This probably accounts for the lack of emphasis on research. However, this does not indicate a lack of study in this field. Indeed, a very large amount of research, both in urban and environmental studies, is carried out in other disciplines. The geography discipline in Ontario is particularly strong in urban oriented instruction and research. Along with other social scientists, geographers produce many reports which serve as a basis for planning both in the urban and environmental fields. Furthermore, in several instances courses are cross-listed and staff have cross-appointments.

The consultants seem to feel that planning employment opportunities are in an equilibrium. We question, however, whether this is true for opportunities in research. The social sciences must be allowed to continue to strengthen their contributions to planning research.

The adverse criticism of the planning programme at the University of Ottawa, where it is jointly administered with geography need not apply to all joint programmes. Indeed, the question of social science input in planning remains unanswered. We feel that planning must continue to strengthen its links with Faculties of Arts and Science.

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# APPENDIX C

## UNIVERSITY COMMENTS

Comments appear from Guelph, McMaster, Ottawa, Queen's, Toronto, Waterloo, Western Ontario, and York.

## University of Guelph
## Comments on Report of the Consultants
## Planning and Environmental Studies

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The University of Guelph is not recognized in the 70 per cent of the report which is given over to Planning because we do not offer a graduate degree program in that field. It is understood, however, that many of our departments are, and will continue to be, concerned with planning. Emphasis is placed on what is being planned, rather than on the process of planning.

In Part Two, devoted to Environmental Studies, concentration on the Center for Resources Development in no way implies that graduate programs in other departments are not environment-oriented. The consultants have presented a very useful statement analyzing what they perceive to be the subject matter and the interrelationships within this field.

With regard to the statement (pages A66-68) about the University of Guelph we express regret that [illegible] visit of the consultants occurred at a low point in the Center's history. Studies which were then underway were completed in May 1973, and an advanced stage has been reached in implementation of the major recommendations. Effective July 1, 1974 the new Director of the Center takes office.

The consultants (pages A67 and A71) disagree with our decision to offer the master's degree by course-work, as well as by thesis. The course-work degree will require completion of a special project in addition to a strengthened core and elective courses, which will provide for a more effective interdisciplinary influence. We consider the latter to be essential, and to be more readily achieved in the course-work program than in the thesis program, especially as team teaching becomes a regular practice. The thesis of a given candidate, on the other hand, is likely to be specialized, even though the research has been interdisciplinary in nature. Incidentally we think it unfortunate that the consultants were not "told about" (page A67) the many theses submitted by candidates from a variety of fields in addition to soil science.

The consultants (page A71 and recommendation 6) make a special plea to strengthen the links with the Social Sciences and Humanities. Guelph, Toronto, and Western Ontario are all urged to arrange for "real, not merely token, participation" from these subject groups. As far as Guelph is concerned we record the fact that our proposed degree by course-work is envisaged as providing particularly for more extensive participation by the Social Sciences and Humanities--more, indeed, than can be achieved in the degree by thesis without unduly prolonging the time required for the degree. Further, we note the mutual complementarity of the Universities of Guelph and of Waterloo. We have planned to provide for a cooperative approach by which Guelph could contribute from its strengths in the natural and physical sciences, while Waterloo could contribute from the Social Sciences and Humanities. We are far from ignoring the Social Sciences and Humanities, but we do consider that a strong program is most likely to develop if it is based on the recognized strengths of the University. While we obviously share the consultants' desire to provide for increased participation of the Social Sciences and Humanities we are concerned lest their recommendation 6 be interpreted to imply that each of the three universities to which they refer should develop similar programs.

We take note of the helpful suggestions made by the consultants, and observe that the march of events makes it readily possible for us to give assurances that these points are in hand.

11 June, 1974

## MCMASTER UNIVERSITY RESPONSE
## TO THE PLANNING AND ENVIRONMENTAL STUDIES
## PLANNING ASSESSMENT

We are grateful for the opportunity to comment on this report. McMaster University does not have any named programmes in either Planning or Environmental Studies and while the consultants correctly note that there "might be some interdisciplinary initiatives leading to named degree programmes at McMaster," there are as yet no formal proposals for programmes of this type under consideration within the University.

The report, we are pleased to note, admits to being modest in its scope and is concerned almost exclusively with named degree programmes. We concur with the consultants' comment to the effect that there are often a large number of programmes in Planning or Environmental Studies that are not specifically so named whose existence will often be a sufficient reason for a university's not having a named programme (p. A-1). At McMaster University we have, as the consultants note on page A-61, "the Waste Treatment Processing Programme, and the Air Pollution Laboratory, which involve Chemical Engineering and Medicine, and the Great Lakes Simulation Model Study, involving Biology." We would note that, in addition, the School of Social Work offers a Master's degree in Social Welfare Policy and that in the Department of Geography there has been a long history of graduate work in Urban and Regional Planning quite similar to that referenced at the University of Ottawa. We interpret many of the statements in the consultants' report as allowing for considerable flexibility in the system in regard to the possible development of other similar ventures within the university that relate in some way to the general fields of Planning and Environmental Studies.

We support in principle recommendation number 6 relating to Environmental Studies, namely that there should be created a standing committee to monitor the future development of Environmental Studies programme in the Province. We agree with the suggestion that such a committee should have a strong representation of Social Scientists and Humanists and we would urge also that the Physical and Life Sciences be well represented on this committee. In this regard, it is worth recalling that the Solid Earth Sciences report presented a very strong case for those disciplines to be in the vanguard of Environmental Studies and some overall co-ordination of such efforts is clearly needed. In the same vein, we concur with the consultants in their recommendation number 9 concerning Environmental Studies which calls for "a far wider study" to be conducted of environmental-related education and research in Ontario at all levels. The consultants in our view, might well have argued also for such a study to be conducted of planning and related subjects for their report certainly does not deal with Urban Studies programmes which exist at some universities and which are closely related in their goals and contents to many of the planning programmes.

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June 10, 1974

Dr. M.A. Preston,
Executive Vice-Chairman,
Advisory Committee on Academic Planning,
Ontario Council on Graduate Studies,
Council of Ontario Universities,
130 St. George Street, Suite 8039,
TORONTO, Ontario. M5S 2T4

Dear Dr. Preston,

This is a reply to your request for the University of Ottawa's comments on the Consultants' Report to ACAP on Planning and Environmental Studies.

We are pleased to note that the Consultants consider it "important that there be a high quality dynamic program at Ottawa, because of the bilingual character of the existing program and its geographic location" and that they have expressed the view that at present "the program appears to have the requisite space, library facilities...". The University recognizes that it has a commitment to this field and certainly intends to develop it to the point where it can be appraised as an autonomous academic program with its own designated degree.

We are also pleased to note that the Consultants find our new and (at the time of their visit) proposed staff appointments in the programme of high academic quality. Perhaps it was because the Consultants had not received in advance the particulars of these new members that they considered them to be Geographers rather than Regional Planners. However, the facts are that two of the three full-time new professors have had their primary training and degrees in Planning and Engineering, not in Geography. Their teaching in Geography is limited to courses in Planning, which may be taken by students specializing in Geography.

For the past year and a half a University Commission has been preparing recommendations for the revision of our academic structures and we expect that the Senate will be acting on these recommendations during the spring of 1975. We anticipate that the consequent organizational changes will make possible a much closer relationship between our programme in Regional Planning and a number of other disciplines (along the lines mentioned on page A28 of the Consultants' Report). This should strengthen considerably the interdisciplinary character of the program, facilitating a greater input from other departments and faculties. An interdepartmental committee (Geography, Regional Planning and Economics) is actively considering this matter.

The University is well aware of the problems presented by the Consultants. It has recognized that it has a commitment to develop the field of Regional Planning. It has already devoted considerable resources to this academic programme, and it hopes early in 1976 to be in a position to present for appraisal a high quality, bilingual interdisciplinary programme in Regional Planning with emphasis on one or at most two areas of specialization.

May I be permitted to express some concern at the apparent inflexibility of the Consultants with respect to the "autonomy" of the programme and particularly its administrative structure. Structures should not become blinkers! High academic standards and qualified academic staff seem to be, with convenient physical facilities and library holdings, much more important for an academic programme than the particular administrative structure which is adopted in a given institution.

Yours sincerely,

**Roger Guindon, O.M.I.,**
Rector.

copy: Paul Hagen

## QUEEN'S COMMENTS UPON THE CONSULTANTS' REPORT ON PLANNING AND ENVIRONMENTAL STUDIES

Queen's comments are directed to that part of the report which deals with programs in Planning. There are two issues of major significance and two of lesser significance to Queen's. The major issues concern (1) the faculty-student ratio in the School of Urban and Regional Planning and (2) the quality of staff and students within the program. The lesser issues have to do with (1) interdepartmental cooperation between the School and other units within the university and (2) the statements concerning manpower found within the consultants' report.

The consultants' report exaggerates the student-faculty ratio within the School. This arises because students who have completed all requirements except the thesis or report must continue to register. These are in reality part-time students in terms of the effort required of faculty, and the usual practice of considering such students is on the basis of 1 Part-time student = 0.3 Full-time Equivalent Student. In 1973-74 the School's faculty was 4.7 Equivalent Full-Time Staff and a visiting lectureship increased this to 4.9 EFTS. The number of students was 37, so that the faculty-student ratio was 1:7.5.

The University's plans for the School anticipate 42 Full-Time Equivalent Students with 6.0 Equivalent Full-Time Staff, but this situation may not be achieved by 1975-76.

The comments concerning the quality of staff and students might be reconsidered in the light of present conditions. Faculty members have obtained support for three research projects including one sponsored by the Ontario Government's Regional Planning Branch. One member has published a major article in the leading international planning journal. Another has developed a substantial new course on the history of Canadian Planning, the only one given in a Canadian planning school. The Director has been appointed to a Working Party of the Economic Council of Canada (Regional Research Needs), to a Task Force of the Ontario Economic Council (Regional Research Needs), and to a second Task Force of that Council (Regional Government Information Systems). A recent resignation now offers the opportunity for the hiring of a highly qualified replacement.

Records of students offered admission for 1974-75 show at least 30% as "A" students and a further 50% as "B+" students. There was a surfeit of good applicants of which 50% had confirmed, by the date of June 1, their desire to attend Queen's.

The question of interdepartmental cooperation may be clarified in the light of recent events. In 1972-73, for example, the School's 30 graduate students were enrolled in over 20 different courses in 7 other departments. In the current academic year a total of 12 students from 5 departments attended 9 different courses offered by the School. The School's Director provided a policy seminar in the School of Public Administration, while another professor collaborated in a course with faculty in the departments of Geography and Psychology. In the coming year there will be cross-listed courses with the departments of Geography and Sociology. Of major consequence also is the move of the School into new quarters in the Arts and Social Science Complex and the Planning School shares library resources with the Institute of Local Government and the Department of Geography. The excellent library resources of the Planning School seem to have been overlooked by the consultants.

The final comment relates to the consultants' consideration of the supply of planners and the demand for them. In particular the failure to consider the undergraduate programs of the province as a source of trained planners is of major significance. All possible sources of future demand were surveyed, but some sources of supply, including environmental studies, were neglected.

In summary, a substantial improvement in the School of Urban and Regional Planning has been effected since the appointment of Dr. Hodge as Director. The several years of experience since its inception and the time since the visit of the consultants, have seen a rapid maturing of faculty, improved courses of instruction and the arrival of students of high quality. There is every reason to believe that the immediate future will see further pronounced gains in quality of performance both in teaching and research.

18 June 1974

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UNIVERSITY OF TORONTO
*School of Graduate Studies*

OFFICE OF THE DEAN

Toronto 181, Canada

June 14, 1974

Dr. M.A. Preston,
Executive Vice-Chairman,
Council of Ontario Universities,
# 8039,
130 St. George St.,
Toronto, Ontario

Dear Dr. Preston,

The University of Toronto welcomes the consultants' report to ACAP on Planning and Environmental Studies as a useful contribution to the assessment of these disciplines in this province. In some respects the consultants may have limited their focus unnecessarily, but we appreciate that some such limitations were necessary in fields as broad as these. While a number of institutional recommendations are welcome, we believe a few that are general to the disciplines require much further thought. The consultants' major modifications to the Hodge projections, on the basis of new demands, seem well taken.

## Planning

1. We welcome the recommendation that the University of Toronto proceed with its proposed Ph.D. program in Urban and Regional Planning and we reaffirm the commitments made on behalf of the department at the time of appraisal. The space and facilities problem to which the consultants allude has already been tackled by the University and the requirements noted by the consultants have been met for the 1974-75 session. Specifically, an additional studio (approximately 600 sq.ft.) has been provided for graduate students and research, and two new offices for faculty. A lecture room of 450 sq. ft. has been converted for student carrels; at the same time, two lecture rooms, not previously available, have been allotted to the department on a shared basis.

2. The consultants have suggested that the department re-evaluate its decision to abandon a "core" oriented curriculum. In the department's view, the consultants may have not fully understood the department's shift from a core of subjects which the student was required to satisfy without options, to the present system

in which the student has optional ways of satisfying the department that certain core areas such as theory are given adequate emphasis. In practice, a good deal of direction is given to assure the student does satisfy a core while also broadening the range of recommended areas available. The new curriculum is under constant review, however, and no doubt may evolve further with experience.

3. A Presidential Task Force will be set up this fall to review the structure of this University's Faculty of Architecture, Urban and Regional Planning and Landscape Architecture. This review will include consideration of the place and relationship of the Department of Urban and Regional Planning within the Faculty and the University.

4. On page 54, the consultants suggest that the University of Toronto Department consider focussing on city and urban planning, apparently as distinct from the regional and environmental planning in which the Department has some strength. Frankly, we are puzzled by these distinctions, for the research in these areas is closely related. We understand that the urban/regional distinction has declined sharply in importance since the time when departments such as our own were named. The establishment of regional government structures has further broken down that distinction. We suggest also that the consultants, perhaps because of the limits they set to their study, may have failed to take adequate account of the research on high density areas in such units as the Centre for Urban and Community Studies which works closely with the Department of Urban and Regional Planning.

## Environmental Studies

Since the visit of the consultants in June, 1973, the University has taken a number of important steps to improve the situation of the Institute for Environmental Studies (previously Environmental Sciences and Engineering). A new Director has been appointed for a five-year period, Dr. Kenneth Hare, who has previously held a joint appointment with the Departments of Geography and Physics. A strong policy and planning committee has been named to replace the large council. Much closer relations have been developed with a number of faculty and Departments in the Social Sciences, as recognized in the change of name. At the same time, the close links are being maintained with the physical and life sciences and with engineering. We are surprised to note that the consultants do not recognize the key role played by the departments of engineering in particular in the development and continuing activity of the Institute.

We should note that the staffing arrangements are not novel and similar arrangements are found in other Centres and Institutes of this University. While the Institute does not at present have full-time academic staff of its own, it does have a number of paid cross-appointments.

The consultants rightly understand that no new administrative unite would be created for the administration of a degree in environmental studies. When a full degree proposal comes forward it will be considered in the terms of the consultants' recommendations.

Yours sincerely,

A.E. Safarian

A.E. Safarian
Dean

AES/mm

C-12

UNIVERSITY OF TORONTO
*School of Graduate Studies*

OFFICE OF THE DEAN
Toronto 181, Canada

June 27, 1974

Dr. M.A. Preston,
Executive Vice-President,
Council of Ontario Universities,
Suite 8039,
130 St. George St.

Dear Dr. Preston,

In my letter to you of December 4, 1973, I submitted revised enrolment figures for the Department of Urban and Regional Planning as had been requested in your letter of September 26. However, in their report to ACAP the consultants do not use these figures (p. A 51), but evidently refer to our original submission.

The revised figures, based on an annual intake of 40 masters and 8 Ph.D. students, are:

| | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|
| Masters | 70 | 75 | 80 | 80 |
| Doctoral | - | - | 8 | 16 |

Naturally we attach the same caveat to these figures as we would to any other enrolment projections.

Along with the question of which set of figures represents our best projections, I assume ACAP is also concerned about the related point of available space. I share with the Department and the consultants the concern about this, and I have indicated in the University response that steps have already been taken to meet the consultants minimum conditions of this point. I should add that both the Provost and I realize that more should be done in this regard, and we have agreed that this will be one of the priority items in the review of the Faculty and Department which, as noted in my response, will take place in the next few months.

Yours sincerely,

A. E. Safarian

A.E. Safarian
Dean

AES/mm

# Response of the University of Waterloo

# to the Report of the Planning and Environmental Studies Consultants

# to the Advisory Committee on Academic Planning

submitted to ACAP, June 12th, 1974

Our reaction to this report is generally favorable. The consultants have presented a good general description of graduate work in planning and environmental studies in the province and given some useful insights into the individual programmes.

## General Comments:

The report begins with a valuable discussion of the nature of the planning profession and the role which planners play and have played historically in its development. Perhaps the most important contribution of the report is a careful analysis and discussion of the supply and demand problem. The consultants point out that existing analyses of this problem underestimate the demand by ignoring the changing role of planners in Canada. We agree with their finding that the expanded role which planners are assuming in a variety of professional positions at various governmental levels and in the private sector will result in an adequate number of jobs for the projected number of planning graduates in the next five years. Any attempt to decrease graduate enrolment in planning would result in a curtailment of this activity and would be shortsighted.

In the section on the nature of planning education, the consultants discuss the role played by the three levels of education. Since Waterloo is the only university in the province which provides planning education at all three levels, this section is particularly important from our point of view.

The consultants correctly note that an undergraduate programme in planning should "be viewed as pre-professional training and, as such, should be designed to produce semi-professionals or professionals at lower or junior levels". Our undergraduate programme does not attempt to provide the level of professional training which is associated with the master's degree. It does, however, produce graduates with sufficient education and training in planning to assume significant junior-level professional positions. The consultants themselves note the need for people trained at this level in a number of positions. Our baccalaureate graduates in planning are hired in professional planning jobs, but usually at a level where they are working under the supervision of a professional planner and generally they do not have much responsibility initially. The demand for our graduates supports the contention that there is a need for people with this type and level of training in the planning profession. At the same time, the baccalaureate degree provides an appropriate foundation for graduate work in planning.

We agree with the consultants that the master's degree should remain the main mode of entry into the planning profession. The master's programme at Waterloo is designed to prepare a planner generalist with a specialty and equip him to enter professional practice directly. The programme requires all graduates to take a core of courses dealing with planning philosophy, theory and methodology, thus providing them with the necessary professional background. The faculty, about half of whom have degrees in planning, are firmly committed to maintaining this planning core. At the same time, the programme requires a thesis which involves the student in direct relationship with his advisor to work on a specialist problem. The emphasis in these theses varies with the interest of the supervisor and the student. Many of them have a strong research orientation, but many focus on more practical planning problems involving actual work in the field. The increasing need for specialists as opposed to generalists is noted by the consultants and the Waterloo programme is meeting this need.

The doctoral programme aims at producing high level researchers and teachers in planning. The majority of our doctoral graduates have taken academic positions, but a few have been employed in senior positions in government agencies and one has gone into private consulting practice. We are pleased to note that the consultants recognize the importance of doctoral work in planning.

Specific Comments:

The consultants are critical of Waterloo for its failure, in their view, to develop a clear distinction between its three degrees. We believe that the three degree programmes are distinctive both in terms of their purpose and the type of market in which the graduates find jobs. As we have indicated above, the undergraduates are trained as junior planners and take professional planning jobs with a lesser degree of responsibility. Master's graduates occupy planning positions requiring a significant degree of responsibility. Much of the research carried out under the thesis part of the programme is professionally oriented and thus provides the graduate with valuable experience in tackling professional planning problems. The master's degree thus provides a major entry point into the planning profession as it should. Less than 5% of our master's graduates see the degree as a route to the Ph.D. We have already commented above on the purpose of the doctoral degree. It is indeed exactly what the consultants feel it should be - a "research" and/or "teaching"-oriented degree, but also producing high level professionals for operational agencies.

The consultants are also critical of our programme on the grounds that it has too much emphasis on ecological-natural environment problems. They arrived at this conclusion from an examination of a sampling of student theses and project papers. It is unfortunate that the papers and theses which the consultants examined did not present a more balanced picture of the programme of the School. For this the university must accept most of the responsibility. Papers and theses were selected for the consultants to examine to show the quality of the work being carried out and insufficient attention was paid to obtaining a balanced representation of the various areas of study. Of the 42 theses which have been completed in the School since 1969, only 10 fall into the 'ecological' field. Moreover, we would submit that all of this work has a strong planning thrust in the broad context in which we view planning. In our view, the work of this group does belong in the School of Planning. We do not see it as providing an extension into graduate work of the undergraduate programme in the Man Environment Department.

Comments on Recommendations:

We make no comments on the recommendations referring to the programmes at other universities.

Recommendation 2 refers to the programme at the University of Waterloo. We have already commented above on the main points brought out in this recommendation. We are pleased with the consultants' assessment of the high quality of the programme at Waterloo. We have outlined above the relationship between the three degree programmes. At the present time, there do not appear to be any significant reasons to alter the emphasis in these programmes. Nevertheless, this matter is under continual review in the Faculty of Environmental Studies.

Recommendations 6 - 9 are general recommendations pertaining to the Ontario system.

We agree with Recommendation 6. We have already commented on the valuable job which the consultants have done in the analysis of the manpower supply and demand problem.

We agree with Recommendation 7. The discipline group should have a continuing role in coordinating the graduate activities of the various departments to minimize duplication in programmes and to ensure adequate coverage of all of the fields of specialization.

We agree with Recommendation 8 which points out the importance of offering planning courses to undergraduates. While we would agree that there is no need at the present time for the general introduction of undergraduate programmes in planning in the province, we take this comment in the context of the overall report which points out the need for planners trained at this pre-professional level but which indicates that the present programmes at Waterloo and Ryerson are adequate to fill the need.

We agree with Recommendation 9. We are currently exploring ways and means of meeting the need for refresher courses for practitioners. There are obviously a variety of ways of tackling this problem and each university will undoubtedly develop its own approach to the problem.

Respectfully submitted,

L.A.K. Watt

L. A. K. Watt
Dean of Graduate Studies

# Response of the University of Western Ontario to the Report of the Consultants in Planning and Environmental Studies of the Advisory Committee on Academic Planning.

June 11, 1974

The response of this University to the ACAP Consultants' Report on Planning and Environmental Studies has been formulated by a special Senate Committee established for that purpose.

We recognize that Part One of the Report deals with Planning and that it makes no reference to Western because our Planning activities at the graduate level occur within existing Masters and Ph.D. programs in the traditional Social Science disciplines. These activities have been dealt with in other Discipline Assessments.

We derive some gratification from the description of our Master of Engineering (Environmental Engineering) as an "admirable program". We thank the consultants for this judgement and state that it is our intention to maintain the high quality of this program. Our comments on the specific recommendations (Pages A71, A72) follow:

## Recommendation 3a:

We concur.

## Recommendation 3b:

Western is presently considering whether to offer a Master of Environmental Studies program which would be more broadly based than our existing M.Eng.(Env.) program. We have some concern as to what the consultants mean by "central" in recommending "central participation from the Social Sciences". If, by "central", the consultants mean a component the significance of which is equal to that of the other components, then we agree with this usage. If, on the other hand, the word "central" implies "principal focus", then we feel this recommendation to be unduly restrictive. It is our present view that the traditional disciplines in Social Science, Bioscience, Physical Science, Medical Science, Engineering Science, and the Humanities, must all have significant representation in an interdisciplinary Environmental Studies program if the program is to fulfill the needs of present-day society.

Recommendation 6:

We concur with the requirement for "real" participation from the Social Sciences and Humanities in a Master of Environmental Studies program. We question whether the creation of a standing committee of the composition suggested is the best way of achieving balanced programs.

Recommendation 9:

This University has offered "refresher" courses on Environmental topics and will continue to do so within available resources.

YORK UNIVERSITY
4700 KEELE STREET,
DOWNSVIEW, ONTARIO, CANADA

FACULTY OF GRADUATE STUDIES
OFFICE OF THE DEAN

1 August 1974.

Dr. M.A. Preston,
Executive Vice-Chairman, ACAP,
Council of Ontario Universities,
130 St. George Street, Suite 8039,
Toronto M5S 2T4, Ontario.

Dear Dr. Preston,

This letter represents York University's response to the ACAP final report on the Planning and Environmental Studies Planning Assessment.

We are, in general, most impressed by the quality of this report. It seems to us to represent an elegant admixture of thoughtfulness and pragmatic data analysis.

As far as the York programme in concerned we are, of course, most appreciative of the laudatory assessments presented in the report. However, some clarification of conceptual evolution regarding the term "planning" is indicated.

The Faculty's 1970 proposal stated:

> "The common concern of all the (Programme) Groups is the analysis, planning, design and management of various environments as man affects and is affected by them."

That remains our central concern. But while the Faculty has developed over the four-year period, so also has there been a developing understanding of the meanings of the key terms of which "planning" is perhaps the most basic.

On the one hand, planning is seen as some form of deliberate "intervention" in some process. Planning involves clarification of ends and means, and of the relationships between/among them. On the other hand, deliberate interventions occur in some context; hence, urban and regional environments, the spatial and jurisdictional context; man/environment relationships, the larger context of this planet's life support systems; and the concern for values and ethics as the ultimate context to guide intervention.

There has been a developing awareness of this perspective of planning within the Faculty at York. Faculty members (both teachers and students) have acquired new insights whilst adapting their disciplinary bases to each other and to the Faculty's unitary concept of planning at the Man/Environment interface. Meanwhile, the profession's definition of planning has evolved similarly, partly in response to an increased public awareness of planning and environmental issues and a broadening of the commonly-held meaning of "planning".

At the Faculty's inception, its members tended to react against the commonly held definition of "town planning" (eg. "the scientific, aesthetic and orderly disposition of land" as set out in the by-laws of the Town Planning Institute of Canada). This largely explains proclamations such as "We're not a planning school", by which was meant, "The kind of planning we are pursuing here, academically, is different from that practiced outside" (yet similar enough to permit students to work successfully, though we would hope innovatively, in the profession). Now, the profession is changing; TPIC was recently re-named the Canadian Institute of Planners. Ways are being sought to establish linkages with other professions, in recognition that "planning" as a field will soon be practiced by many but professed exclusively by none. These changes, plus the Faculty's own development in its understanding of planning and the emerging importance of fields (such as environmental impact) in which we are among the few who are developing competence, make it increasingly less necessary for members of the Faculty to protest against a planning identity. Some of the comments heard by the ACAP consultants in June 1973, a year ago, would not be in evidence today.

The consultants' reference to only 38.3% of the Faculty's students with "planning" Areas of Concentration has a similar explanation. Our response to the consultants, upon which this figure was based, interpreted their request strictly; it listed only those students whose Areas of Concentration explicitly used the word "planning". We have since re-examined that submission, adding the students whose Plans of Study had a planning orientation and/or who subsequently secured employment as planners (i.e. employers recognized their capabilities as being those required for professional planning work). The results confirm that the great majority of our students clearly have pursued planning studies.

The Faculty's developmental process continues to be one of broadening of perceptions on the basis of the original programme acceptance: something a university must do and something it is expected to do by its members and by those it serves. The direction we are going is one we strongly feel is the most promising in the search going on in much of planning education, for new paradigms to guide the planning and development of urban and regional environments, to improve intervention at the M/E interface.

The York Environmental Studies programme is based on individual student Plans of Study. Aggregation of Student Programmes can be misleading - for example, by 'planning' and 'non-planning' titles or by A/B vs C/D Quadrants. Students in A, B, C or D Quadrants take the same courses (we do not offer separate courses by Quadrants), even though they take them with different learning objectives. Similarly, two students with the same Area of Concentration may devise quite different Plans of Study depending on their backgrounds, interests and quadrants. It is only by examining individual student programmes that it becomes possible to make meaningful generalizations.

It was the Faculty's response to a request from the ACAP consultants to use the Area of Concentration title to summarize programme content that led to the emergence of the 1/3-2/3 distinction between 'planners' and 'non-planners' in their report. This is not a valid distinction. As the earlier discussion has explained, students are not required to use particular terms to illustrate their programme; nor was the Faculty conscious of the need to demonstrate in this way that it was following the guidelines of the 1970 approval.

It is our contention that the Faculty of Environmental Studies has operated and continues to operate within the terms of the 1970 approval. But a Programme Re-Appraisal at the present time fits correctly into the Faculty's developmental process.

In retrospect, the Appraisals Committee's decision to limit York's Environmental Studies programme to the A and B Quadrants can be seen to have had beneficial effects. It focused the Faculty's emphasis on intervention (planning) as its universal theme, and it necessitated re-consideration of the C and D Quadrants accordingly. Similarly, the ACAP review process applied pressure which usefully evoked the response to re-cast the course content and to re-examine the Faculty's definitions of "urban and regional" planning.

At the same time though, it is obvious that the Faculty has evolved, in programme and in structure, during its initial stage of development. New directions are emerging (following the pattern suggested by the ACAP consultants, pp. A-27-29, as solutions to the problem of how to assemble the resources necessary to support a wide range of planning studies.) Clusters of specialized interest, interrelated around the man/environment interface theme, have arisen. One result is several large-scale projects combining acquisition, development and application of knowledge to urgent environmental issues; the clusters are also leading to more fundamental approaches to planning education aimed at the broad generic meaning of planning at the core of Environmental Studies. Simultaneously, recognizing that fundamental work in Environmental Studies cannot be contained solely within this Faculty, we are strengthening and formalizing linkages to related institutional bases through the establishment of joint degree programmes (with Administrative Studies, Law and Education); the exploration of new interinstitutional arrangements (eg. with the Institute for Environmental Studies at the University of Toronto); the exploitation of existing linkages (eg. York University - University of Toronto Joint Transportation Programme); the building of stronger relationships to the neighbouring community (eg. a proposed action-research project in Ward 3, of North York in collaboration with other university Departments active in the area and with community organizations); and the forging of similar links to other governmental and non-governmental institutions in Canada and beyond.

These initiatives, and particularly those concerning interest clusters and common approaches to teaching of related disciplines, give greater emphasis to substantial innovation. In terms of the Faculty model, they will increasingly attract students in the C and D Quadrants. In the light of concern expressed regarding these students, and because the Faculty's second stage of development requires a new approval and a new set of operating limits, York University has now initiated the re-appraisal process.

That process is timely. The Faculty initiatives, described above, are only now taking form. The nature and direction of the second development stage could not have been described two years ago, when the re-appraisal was originally intended, or even one year ago. Had re-appraisal occurred at either of those times, it would have been quite premature; and it would have missed the benefits of the ACAP Review which provided an objective evaluation of the Faculty's initial stage of development. That stage has been confirmed as basically sound, providing a valid platform from which to construct and have appraised the next stage in the Faculty's evolution.

Yours sincerely,

Graham Reed

Dr. Graham F. Reed,
Acting Dean,
Faculty of Graduate Studies.

GR/dm

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# APPENDIX D

## PROCEDURE OF PLANNING STUDY AND TERMS OF REFERENCE

# Procedure for Planning and Environmental Studies

The planning assessment will cover the following elements:

(a) environmental studies
(b) environmental planning and management
(c) other interdisciplinary studies related to (a) and (b).

## A. Tasks Requested from Discipline Group (with help available from ACAP at all stages)

A.1. Suggest suitable consultants. This also will be a matter for discussion with ACAP.

A.2. Examine and comment on pro formae to be used for the gathering of information on current, past and future programmes as described in paragraph B.1.

A.3. Examine and comment on the adequacy of the data on current and past strength.

A.4. Both in consultation with ACAP and separately, consider the situation revealed by the tabulation of proposed future programmes and consider whether future plans should be clarified or developed in more detail. As a result of this step, individual universities may wish to revise the material described in B.1.d. below.

A.5. Possibly develop a tentative plan for development of established or new graduate work in these aspects of Planning and Environmental Studies in Ontario, based on the evaluation of prospects and plans for the collaborative arrangements of the various programmes and paying attention to adequate coverage of the elements of the discipline and to similar activities in other parts of the country. Any such plans will be reported to ACAP which will transmit them to the consultants.

## B. Information from Universities

B.1. Each university is asked to supply to ACAP, in the form indicated by ACAP after comment by the discipline group (paragraph A.3.) information as follows:

(a) for each element viz. environmental studies, environmental planning and management; other related interdisciplinary programmes:

- (i) current list of faculty members (for part-time members show the time spent on university duties);
- (ii) number of full-time and part-time faculty members for each of the past five years;
- (iii) for the current year and preceding five years, number of (1) master's and (2) Ph.D. candidates, (3) non-degree students: full and part-time shown separately.

Under these three headings one individual may appear under more than one category.

(b) for each "department" or programme

- (i) Curricula Vitarum of all faculty members now engaged in graduate teaching or research or soon expected to be ;
- (ii) resources of space - a statement indicating the academic unit's view of the adequacy of its space, and, in connection with the future plans in (d) below, discussing future space provision;
- (iii) other general items relevant to research and graduate study, e.g. computing facilities;
- (iv) co-operative arrangements with related disciplines and departments including shared teaching and research amongst the elements covered by this assessment;
- (v) extent of major relevant laboratory, project and studio facilities and equipment;
- (vi) library resources: analysis of holdings and budget;
- (vii) description of any inter-university arrangements for graduate work;
- (viii) funding research - for each university, an indication of support available or that may be available in support of graduate work in this discipline other than university operating monies, for the current year only;

(ix) description of graduate programme content giving course patterns and areas of research emphasis;

(x) inflow and outflow of students - for the current year only, an indication of the number of graduates registered in other disciplines taking Planning and Environmental Studies courses and the number of courses in other studies taken by Planning and Environmental Studies students;

(xi) the response of Planning and Environmental Studies to community and societal concerns, both through special educational programmes and through contributing to the solution of environmental problems.

(c) table of characteristics of graduate students in the "department" in the previous five years, separately for masters and Ph.D.'s breaking down the numbers by

(i) F.T. and P.T.;

(ii) immigration status (3 years) and country of first degree;

(iii) sources of financial support;

(iv) time to reach degree;

(v) drop-out number;

(vi) Ph.D. ABD's;

(vii) degrees granted;

(viii) post graduate employment of Ph.D.'s
(a) immediate
(b) after two years;

(ix) ABD current employment;

(x) discipline background of students.

(d) proposed plans for the future, in as much detail as the department or programme can provide, including the proposed scheme for support of these plans, and accompanied by supporting arguments, including consideration of the demand for graduates from the programmes. The various headings in (a) and (b) above should be dealt with quantitatively where possible; as a minimum, planned numbers of faculty and graduate students should be given to 1978.

B.2. The material so supplied will be collated by ACAP and transmitted to the discipline group for consideration.

B.3. Apart from the material described in B.1.d. and to some extent generated at the department level, each interested university will be requested to make an individual statement of its plans for the development of Planning and Environmental Studies, in particular the items of future commitment implied by item B.1.d. This statement will be made available to the discipline group.

B.4. Deadline dates for parts A and B will be established by ACAP.

## C. Terms of Reference of Consultants

C.1. Consider the materials prepared by the discipline group and the universities and obtain other data they may require to carry out the tasks detailed below. They may obtain data and views from any relevant source, such as, for example, employers of holders of graduate degrees, professional and learned societies, federal agencies. They shall consult, at appropriate times, with the consultants working on other related planning assessments and when necessary discuss their findings with these consultants. Normally, the campus of each interested university shall be visited by at least 2 of the 3 consultants, working as a group. Consultants shall arrange their schedule of visits to the universities in consultation with ACAP to ensure uniformity. Reports of appraisal consultants are privileged documents and are not to be made available to ACAP consultants. Consultants shall liaise with the discipline group near the beginning of the work, during the work as they consider necessary, and immediately before preparing their final report.

C.2. Consultants shall endeavour as much as possible to work as a group, as an encouragement to the integration of their respective discipline interests and viewpoints in the assessment process. The consultants should feel free to arrange meetings with the Planning and Environmental Studies discipline group or its subcommittees, and with related individuals or groups to discuss the concerns of the assessment.

C.3. Report on the adequacy of the present state of graduate work in Planning and Environmental Studies in the province in general and in each university where applicable, discussing the following:

a. coverage of elements and areas of concentration and extent of activity in each.

b. faculty qual[illegible] and quantity

c. nature of programmes offered

d. enrolment size and distribution amongst universities

e. quality of student body; admission requirements

f. relationship to related disciplines

g. physical facilities

h. other matters considered by the consultants to be significant.

C.4. Report on the adequacy of the concepts, plans and programmes for the future of Planning and Environmental Studies, as prepared at each university, and by the discipline group for the field as a whole.

C.5 Make recommendations and provide the rationale for the development of graduate work in Planning and Environmental Studies in Ontario between 1973 and 1983, but in more detail for 1973 through 1978, and, without limiting the generality of the foregoing and taking into account the general Canadian context of graduate work in Planning and Environmental Studies, dealing with the following points:

(a) Desirable programmes to be offered in the province, considering both possible limitations or reductions of existing programmes and creation of new programmes and new kinds of programmes including the appropriateness of part-time programmes. In particular, consider any new areas of Planning and Environmental Studies in which graduate work should be developed.

(b) Desirable provincial enrolments, year by year, in the various levels of graduate study and programmes within the discipline. One should consider the need for highly trained manpower and also the general cultural and societal factors which may lead students to pursue graduate work in Planning and Environmental Studies. In considering manpower needs, one should take account of the "market" available to graduates (at least all of Canada) and of other sources of supply for that market. Results of forecasts of high level manpower employment should be treated with due caution and only in a clearly balanced relationship with cultural and societal needs.

(c) Distribution amongst the universities of responsibility for programmes and for areas of concentration where appropriate, including consideration of the need for any increase or decrease in the number of departments offering such work and including consideration of areas of collaboration and sharing of facilities at regional level and across the province.

(d) Distribution of enrolment amongst the universities, showing desirable ranges of enrolment.

(e) Desirable extent of involvement with related disciplines.

C.6. Consultants may recommend appraisals of individual programmes. This would arise if consultants were to suspect that a programme would be found to be wholly or in part below minimum acceptable standards; an appraisal by the Appraisals Committee is the means of settling the question. It is recognized that this action would be infrequent. Perhaps more likely, in planning assessments in some disciplines, consultants may find an excess of programmes in the same area of study, all of which could pass an appraisal; they would then have to make their own judgments of relative quality (a task outside the terms of reference of the Appraisals Committee), and guided by this judgment and other factors, the ACAP consultants would have to recommend where enrolment should be curtailed or eliminated.

## D. Appointment of Consultants

The consultants shall include one person of wide academic experience in Canada but in a different discipline. The other 2 consultants shall have international standing in one of the elements of the discipline, with suitable administrative or consulting experience.

## E. Report of Consultants

The consultants submit a joint report to ACAP. Minority reports are of course, possible. The reasoning leading to their recommendations should be given fully, in view of the subsequent treatment of the report. The report is submitted for comment to the discipline group and to each interested university. There may be informal or interim exchanges of views amongst the discipline group, the universities, and ACAP. Any university which wishes to make a formal statement on the consultants' report shall submit it to ACAP. Any such report shall be transmitted to the discipline group. The discipline group shall submit its formal comments and/or recommendations to ACAP. ACAP considers the discipline group and university statements along with the consultants' report and transmits them to COU with its recommendations of the position COU should adopt. Copies of the material transmitted to COU will be supplied to OCGS, and to the members of the discipline group and to the interested universities. The consultants' report may be published together with the comments of the discipline group, those of any university so requesting, and with the position adopted by COU.

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# APPENDIX E

## DISCIPLINE GROUP MEMBERSHIP

## DISCIPLINE GROUP MEMBERSHIP

Brock - R. C. Hoover

Guelph - W. E. Tossell

Lakehead - B. Phillips

Laurentian - J. T. Gray

McMaster - L. J. King, until October 1, 1973
- G. P. Harris

Ottawa - C. Greffard, until June 22, 1972.
- H. Morrissette, until October 13, 1972.
- C. Dudley

Queen's - S. D. Lash, until May 12, 1972.
- E. W. Thrift, until February 12, 1974.
- G. J. F. Hodge

Toronto - R. M. Soberman, until June 13, 1972.
- J. Dales, until May 14, 1973.
- A. Waterhouse

Waterloo - L. O. Gertler, until June 16, 1972.
- T. Burton, until April 30, 1973.
- L. Martin

Western Ontario - J. E. Zajic

York - G. A. P. Carrothers*

* Chairman

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# APPENDIX F

## ROLES OF ACAP AND OF DISCIPLINE GROUPS

## Ontario Council on Graduate Studies

## By-Law No. 3

A By-Law to establish a Committee on the Academic Planning of Graduate Studies.

1. The Ontario Council on Graduate Studies, recognizing the importance of providing for the continued and orderly development of graduate studies in the Ontario universities, establishes a Standing Committee to be known as the Advisory Committee on Academic Planning (abbreviation - ACAP).

Interpretation

2. In this By-Law,
    (a) "Committee" without further specification, means the Advisory Committee on Academic Planning;
    (b) "Council" or OCGS means the Ontario Council on Graduate Studies;
    (c) "Committee of Presidents" or CPUO means the Committee of Presidents of Universities of Ontario;
    (d) "university" means a provincially assisted university of Ontario;
    (e) "discipline" means any branch or combination of branches of learning so designated;
    (f) "discipline group" means a body designated as such by the Committee of Presidents of the Universities of Ontario, and normally consisting, for any one discipline, of one representative from each of the interested universities;
    (g) "planning assessment" means a formal review of current and projected graduate programmes within a discipline or a group of disciplines;
    (h) "programme" signifies all aspects of a particular graduate undertaking;
    (i) "rationalization" means the arranging of graduate programmes in order to avoid undesirable duplication, eliminate waste, and enhance and sustain quality.

### Membership

3. (a) The Committee shall consist of at least seven members of the professoriate in Ontario universities, some of whom shall be members of the Council.

   (b) The members of the Committee shall serve for such periods of time as the Council may determine, and they shall be selected in such a manner as may provide for reasonable balance both of academic disciplines and of universities.

   (c) The members of the Committee shall be appointed as individuals.

### Chairman

4. The Chairman of the Committee shall be named by the Council, and he shall have one vote.

### Quorum

5. A majority of all members of the Committee shall constitute a quorum.

### Functions

6. The functions of the committee shall be

   (a) To advise OCGS on steps to be taken to implement effective provincial planning of graduate development;

   (b) To promote the rationalization of graduate studies within the universities, in cooperation with the discipline groups;

   (c) To recommend, through OCGS, to CPUO the carrying out of planning assessments of disciplines or groups of disciplines and to recommend suitable arrangements and procedures for each assessment;

   (d) To supervise the conduct of each planning assessment approved by CPUO;

   (e) To respond to requests by CPUO to have a discipline assessment conducted by proposing suitable arrangements;

   (f) To submit to CPUO the reports of the assessments together with any recommendations which the committee wishes to make. A copy of the report shall be sent to Council.

### Jurisdiction

7. In order that the Committee may discharge the functions described in Section 6 above, it shall be authorized

(a) to request a university to provide such information pertaining to graduate studies as may enable the Committee to discharge its functions;

(b) to request a discipline group to provide such information as may enable the Committee to discharge its functions;

(c) to receive reports from the universities and from the discipline groups, and to comment and communicate with the universities and the discipline groups concerning such reports;

(d) to convene a meeting of any discipline group for the purpose of discussing the development to date, and proposals for the future development of graduate studies in the discipline concerned;

(e) to send one or more representatives to a meeting of a discipline group at the invitation of the discipline group;

(f) to make such suggestions to a discipline group as may be deemed appropriate to the functions of the Committee;

(g) to supervise the conduct of planning assessments, and to report thereon to the Committee of Presidents of Universities of Ontario;

(h) generally to report and to make recommendations to the Council;

(i) to seek and receive advice from appropriate experts;

(j) to employ consultants in connection with planning assessments.

Procedures

8. The procedure to be followed by the Committee shall be as approved by the Committee of Presidents of the University of Ontario.

9. The Committee's function is solely advisory.

Effective Date

10. This By-Law shall take effect January 1971.

## ACAP DISCIPLINE GROUPS AND THEIR ROLES

### 1. Establishment of a Group

a. When it is considered desirable to activate planning of graduate work in some discipline(s) or interdisciplinary area, COU, on the advice of OCGS, will authorize the establishment of an ACAP discipline group, if it was not already approved and included in the May, 1968 list. If it is already authorized, ACAP may decide to set it up as described in paragraph b.

b. The Executive Vice-Chairman of ACAP will then invite the executive head of each university (including Waterloo Lutheran University) either to nominate a member of the discipline group or to indicate that his university has no plans for graduate study in this discipline in the next five years or so. If a university can state no plans for future graduate work in the subject, but feels that a watching brief is desirable, it may appoint an observer to the group.

c. Changes of a university's representative are to be notified by the executive head.

d. The group shall select its own chairman.

### 2. Meetings

a. A discipline group may meet at the call of its chairman or in accord with its own arrangements.

b. A discipline group may be called to meet by the Executive Vice-Chairman acting for ACAP.

### 3. Responsibilities

a. The group is to keep under review the plans for graduate work in its discipline in Ontario, including new developments and trends in the discipline, and to make reports to ACAP on a regular basis.

b. The group may make recommendations to ACAP in connection with graduate work in its discipline when it considers it appropriate.

c. ACAP will assist the group in obtaining information and data, as mutually agreed.

d. When COU has instructed ACAP to conduct a planning assessment, the discipline group will assist and advise ACAP in determining procedures and terms of reference, will report as requested and will generally facilitate the assessment.

Approved by OCGS March 22, 1973
and by COU April 6, 1973.

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# APPENDIX G

## CURRICULA VITARUM OF THE CONSULTANTS

# TERENCE MICHAEL PENELHUM

Born Bradford-on-Avon, England, April 26, 1929.

M.A., Edinburgh, 1950
B. Phil., Oxford, 1952

English-speaking Union Exchange Fellow, Yale, 1952-53
University of Alberta, Edmonton, lecturer in philosophy, 1953-55
assistant professor, 1955-59
associate professor, 1959-63
University of Calgary, professor of philosophy and religious studies, 1963-
professor and head, philosophy, 1963-71
Dean of Arts and Science, 1964-67

Philosophy of mind; philosophy of religion; history of modern philosophy.

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## IRA MILES ROBINSON

Born New York, N.Y., July 2, 1924.

| | |
|---|---|
| B.A. | Wesleyan, 1946 |
| M.A. | Chicago, 1950 |
| Ph.D. | Chicago, 1961 |

USN, Lt(jg) 1943-46

Illinois, South Side Planning Board, Director of Planning, 1950-52.
University of British Columbia, assistant professor, 1952-61.
Arthur D. Little Inc., senior staff member, urban and regional economy, 1961-65.
University of Southern California, Professor and Chairman, Graduate Department of Urban and Regional Planning, 1965-

Consultant, Municipal Council of West Vancouver, 1953-54.

Urban and regional studies; urban renewal economics, regional resource development; Canadian new tours; planning standards for residential environment; amenity resources for urban living; mathematical models for urban-regional planning.

Address: (1974) University of Calgary
Calgary, Alberta.

# JOHN ROBERT WEIR

Born Wingham, Ontario, October 17, 1912

B.S.A., Toronto, 1936
M.Sc., Alberta, 1938
Ph.D., Minnesota, 1944
D.Sc., Manitoba, 1966; Guelph, 1974

Ontario Agricultural College, lecturer to professor, 1940-52
University of Manitoba, Dean of Agriculture and Home Economics, 1952-65
Science Secretariat, Privy Council Office, Deputy Director, 1965-67
Director, 1967-69
Fisheries Research Board, Chairman, 1969-

Project Officer, Scientific Research and Development, Royal Commission on Government Organization, 1961
Consultant on university organization (Ford Foundation), Brazil, 1963
Chairman, Commission on Agricultural Education in Kenya (Rockefeller Foundation), 1966-67
Agricultural Educator (International Bank for Reconstruction and Development, Second Education Project Appraisal Mission to Ireland), 1973
Member, Research Directorate, Agricultural Economics Research Council of Canada, (Chairman, 1962-64)
Member, Manitoba Research Council, 1963-65
Member, Science Council, 1969
Fellow, Agricultural Institute of Canada
Fellow, American Association for the Advancement of Science

Address: Fisheries Research Board, Ottawa